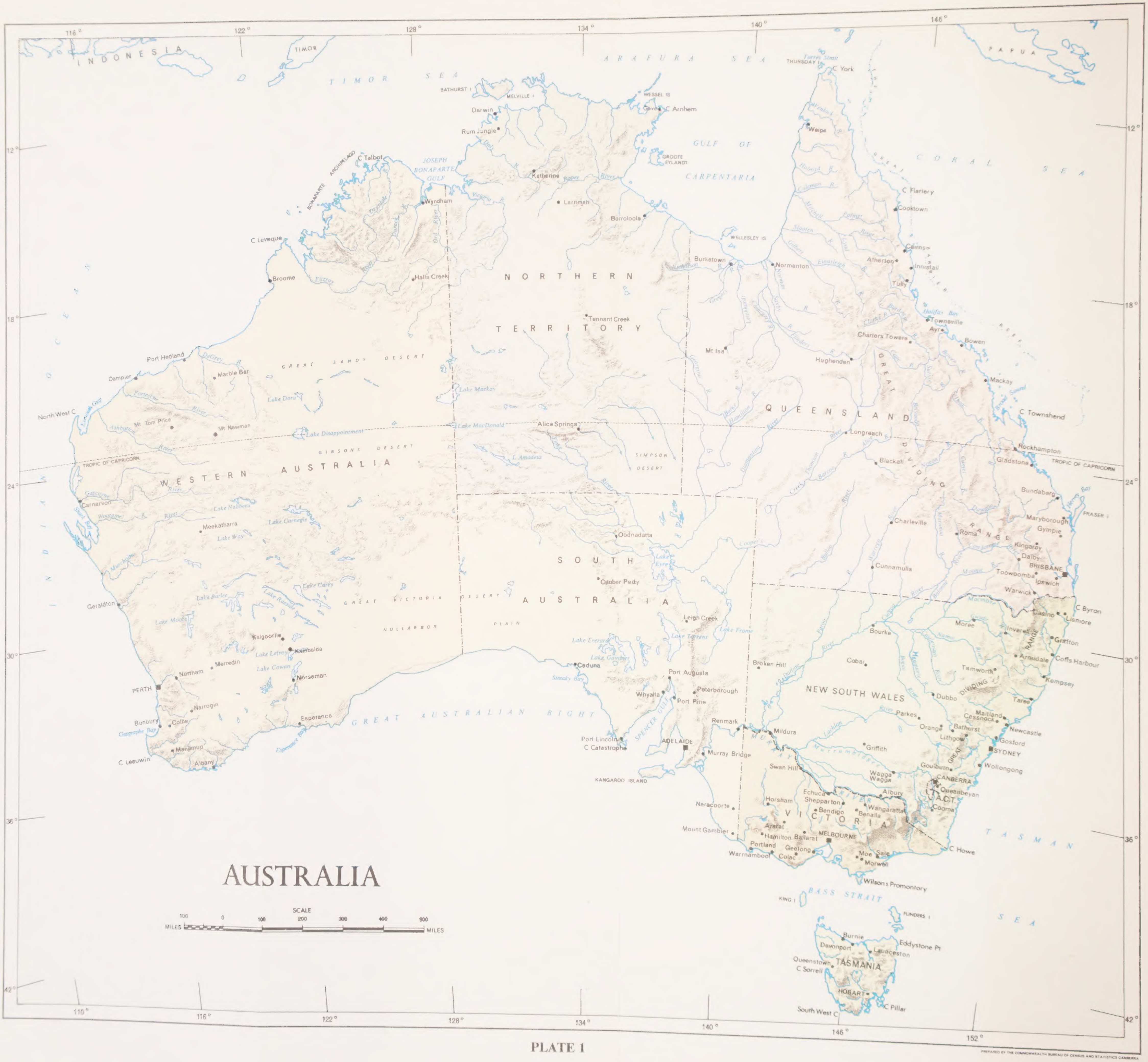
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Fortescue
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TROPIC OF CAPRICORN
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QUEENSLAND
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Blackall
Carnarvon
Gascoyne
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Wooramel
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Northam
Merredin
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Geographe Bay
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C Leeuwin
Albany
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Lake Frome
Lake Torrens
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Ceduna
Streaky Bay
Port Augusta
Whyalla
Peterborough
Port Pirie
SPENCER GULF
Port Lincoln
C Catastrophe
ADELAIDE
Murray Bridge
KANGAROO ISLAND
Renmark
Broken Hill
Bourke
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Murray River
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VICTORIA
Naracoorte
Ararat
Hamilton
Ballarat
MELBOURNE
Mount Gambier
Portland
Geelong
Warrnambool
Colac
Moe
Sale
Morwell
C Howe
Wilsons Promontory
TASMAN SEA
BASS STRAIT
KING I
FLINDERS I
Burnie
Devonport
Launceston
Eddystone Pt
Queenstown
TASMANIA
C Sorell
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PLATE 1

PREPARED BY THE COMMONWEALTH BUREAU OF CENSUS AND STATISTICS CANBERRA

OFFICIAL YEAR BOOK
OF THE COMMONWEALTH OF AUSTRALIA

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OFFICIAL
YEAR BOOK
OF THE
COMMONWEALTH
OF AUSTRALIA

No. 56, 1970

Prepared under instructions from the Honourable the Treasurer by

J. P. O'NEILL

ACTING COMMONWEALTH STATISTICIAN

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

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PREFACE

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, 'to make laws for the peace, order, and good government of the Commonwealth, with respect to . . . Census and statistics.' In the exercise of the power so conferred, a Census and Statistics Act was passed in 1905, and in the year following the Commonwealth Bureau of Census and Statistics was created. The first Official Year Book was published early in 1908. The publication here presented is the fifty-sixth Official Year Book issued under the authority of the Commonwealth Government.

The special index (preceding the general index) provided at the end of the volume, together with certain references given in the various chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, in order to conserve space, have been omitted or abbreviated in the present volume. Where, in the general index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

In this issue there has been some slight change in the order of chapters. An effort has been made to reduce the overall size of the book and this has necessitated the deletion of some detailed material, particularly at the State level, for which the reader is referred either to an earlier issue or to other specialised publications. In the process of revising the content some chapters have been substantially re-arranged and these include present chapters 13, 14, 15, 17, 18, 20 and 29.

Among new or revised material included the following items may be especially mentioned.

Chapter 6. International Relations. New tables on Australia's contributions in international aid (pages 113–4).

Chapter 7. Population. A section showing selected characteristics of the Aboriginal population at the 1966 Census is included on pages 138–42.

Chapter 8. Vital Statistics. A new table showing long-term age-specific death rates, page 181. The tables showing Causes of Death have been amended to incorporate the Eighth (1965) Revision of the International Classification of Diseases (pages 185–8).

Chapter 12. Transport, Communication and Travel. Special article 'Standardisation of railway gauges' to mark the completion of the Sydney–Perth link. The section on private railways has been expanded (page 364).

Chapter 14. Public Health. Details of a Survey of Chronic Illnesses, Injuries and Impairments are contained in the Appendix.

Chapter 17. Private Finance. Three new tables containing details of Permanent Building Societies are shown on pages 531–2.

Chapter 18. Public Finance. A new table showing Expenditure on War and Defence is given on page 544.

Chapter 20. Education, Cultural Activities and Research. Results of a Survey of Post-School Study Courses are shown on pages 642–4. The section on Colleges of Advanced Education has been expanded.

Chapter 21. Employment and Unemployment. Some results of a Survey of Child Care are shown on pages 705–8.

Chapter 31. Australian Integrated Economic Censuses, 1968–69. This is a special chapter for this issue setting out the aims, the concepts and the methods employed in the 1968–69 integrated censuses of manufacturing, mining, wholesaling and retailing.

The usual series of graphs has been revised and extended.

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

The statistics contained in the majority of the chapters of this volume relate to the years ended June or December 1969. More detailed statistics on subjects dealt with in the Year Book are available in the various annual reports published by this Bureau, and more recent statistics are contained in the *Digest of Current Economic Statistics* (monthly), the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and in other publications issued monthly, quarterly, half-yearly, or yearly. These publications are listed in Statistical publications of Australia (*see* Chapter 30, Miscellaneous), and the last pages of this volume contain a list of current and recent printed publications available for purchase, showing issue numbers, dates, and prices.

A State Year Book is published by the Deputy Commonwealth Statistician of each State. These publications contain greater statistical detail and additional supplementary material concerning the individual States which cannot be accommodated in the Commonwealth Year Book. The Deputy Commonwealth Statisticians of all States also issue Pocket Year Books and a number of printed and mimeographed publications dealing with their respective States. These publications are listed, together with publications of the Central Bureau, in *Publications of the Commonwealth Bureau of Census and Statistics* issued annually by this Bureau.

My thanks are tendered to the Deputy Commonwealth Statisticians of the several States, who have collected and compiled the data on which a great part of the information given in the Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments and to others who have kindly, and often at considerable trouble, supplied information, and to the Government Printer and his staff for their services in printing this Year Book and in assisting and advising throughout its preparation.

This preface provides me with the opportunity to record a tribute to Mr K. M. Archer, O.B.E., who retired from the position of Commonwealth Statistician in October 1970 after a working life devoted to the government statistical service. The period since his appointment as Commonwealth Statistician in 1962 has been one of greatly accelerated development in all facets of the Bureau's work. There have been many new ventures including, for example, the planning and implementation of the 1968–69 censuses of manufacturing, mining, wholesaling and retailing, conducted on a fully integrated basis for the first time. Statistical procedures and techniques have been refined considerably, with extensive use being made of sample survey methods, computer processing and other tools, to produce timely, reliable and relevant statistics. Indeed, Mr Archer was one of the first to recognise the benefits that would accrue from the introduction of electronic computing equipment, so that the Bureau now uses computers in its offices in Canberra and the State capital cities. Throughout his career he strove to foster greater statistical professionalism within the Bureau through in-service training, a statistical cadetship scheme and recruitment of graduates. The high international standing of Australian statistics was recognised in 1967 when the 36th Session of the International Statistical Institute and the 7th Conference of Asian Statisticians were held in Australia, and again in 1968 when Mr Archer was elected Chairman of the United Nations Statistical Commission. In the following year he was made an Honorary Fellow of the Royal Statistical Society. For his services to statistics in Australia, Her Majesty the Queen awarded Mr Archer an O.B.E. in 1965. Mr Archer has by his energy and foresight, done much to advance the development of official statistics in Australia.

J. P. O'NEILL
Acting Commonwealth Statistician

Commonwealth Bureau of Census and Statistics,
Canberra, A.C.T. 2600. November 1970

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n.s. —not stated
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— Break in continuity of series (where drawn across a column between two consecutive figures).

A blank space in a column of figures means that the figure concerned is not yet available.

The following *abbreviations* are used for the titles of the Australian States and Territories and the Commonwealth of Australia: N.S.W. (New South Wales), Vic. (Victoria), Qld (Queensland), S.A. (South Australia), W.A. (Western Australia), Tas. (Tasmania), N.T. (Northern Territory), A.C.T. (Australian Capital Territory), T.P.N.G. (Territory of Papua and New Guinea), Aust. (Australia), Cwlth (Commonwealth).

In general, the *statistics in this volume relate to the States and Territories of the Commonwealth of Australia*, i.e. they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 29, The Territories of Australia. A few series elsewhere include particulars of the Territory of Papua and New Guinea because of the nature of the subject-matter—these series are indicated.

Yearly periods shown as e.g. 1969 refer to the year ended 31 December 1969; those shown as e.g. 1968–69 refer to the year ended 30 June 1969. Other yearly periods are specifically indicated. The range of years shown in table headings, e.g. 1901 to 1968–69, indicates the period covered, but does not necessarily imply that each intervening year is included.

Values are shown in Australian dollars ($ or $A) or cents (c) unless another currency is specified.

Any *discrepancies between totals and sums of components* in tables are due to rounding.

Unless otherwise indicated, the *British system of weights and measures* is used. The weights and measures used in recording production, etc. of different commodities are as follows:

Bushel (bus) = approximately 2,218 cubic inches
Gallon (gal) = Imperial gallon of approximately 277 cubic inches
Pound (lb) = pound avoirdupois
Cental = 100 pounds
Hundredweight (cwt) = 112 pounds
Ton = Long ton of 2,240 pounds
Short ton = 2,000 pounds
Bale (of wool) = approximately 300 pounds

Cereals, fruit and certain other products are generally recorded in bushels. While the weight of a bushel varies according to the nature of the product, it is also subject to considerable variation for individual products on account of such things as variety and method of packing. However, average bushel equivalent weights, as set out below, may be used for the conversion of each of these products to pounds weight avoirdupois.

BUSHEL WEIGHTS
(lb per bushel)

Product	*lb per bushel*	*Product*	*lb per bushel*	*Product*	*lb per bushel*
Apples	42	Maize	56	Pineapples	42
Apricots	48	Mandarins	48	Plums and prunes	58
Bananas	56	Mangoes	40	Pollard	20
Barley	50	Millet	60	Potatoes	60
Beans (dry)	60	Mustard seed	50	Quinces	42
Beans, French (green)	20	Nectarines	50	Rape	56
Bran	20	Nuts, other than peanuts	40	Raspberries	30
Canary seed	56	Oats	40	Rice	42
Cherries	48	Onions	56	Rye	60
Clover seed	60	Oranges	48	Setaria	60
Custard apples	35	Panicum	60	Sorghum	60
Figs	44	Papaws	24	Soya beans	60
Flax seed (pure seed)	56	Passion fruit	34	Strawberries	30
Flour	56	Peaches	45	Sunflower seed	33
Grapefruit	42	Peanuts	22	Tares	60
Grass seed (most varieties)	20	Pears	45	Tomatoes	48
Lemons	48	Peas, field (dry)	60	Wheat	60
Loquats	45	Peas in pod (green)	28		
Lucerne seed	60	Persimmons	44		

CORRIGENDA

PAGE

169—Table **FERTILITY OF MARRIAGES** year 1968 *for* 2.09 *read* 2.33

413—Table **EMPLOYMENT, SICKNESS AND SPECIAL BENEFITS: SUMMARY,** *Number admitted to benefit during year, Unemployment*—1966–67 *for* 151,024 *read* 150,780

433—Table **SCHOOL HEALTH SERVICES,** Dental examinations—Children examined; *W.A.—for* 11,048 *read* 17,460; *Tas.—for* n.a. *read* (*a*)45,609; *N.T.—for* 12,370 *read* 12,920. Dental examinations—Number treated; *W.A.—for* 2,800 *read* n.a.; *Tas.—for* 42,994 *read* n.a.; *N.T.—for* n.a. *read* 12,270

443—Table **CONVICTIONS FOR CERTAIN SERIOUS OFFENCES AT MAGISTRATES' COURTS, AUSTRALIA,** *1968 for* **93,910** *read* **93,915**

748—Table **ALIENATION AND OCCUPATION OF CROWN LANDS, 1969, Australia** (per cent) *for* **160.8** *read* **9.4**; *for* **17.9** *read* **2.5**; *for* **381.4** *read* **56.1**; *for* **239.9** *read* **32.2**

CHAPTER 1

DISCOVERY, COLONISATION, AND FEDERATION OF AUSTRALIA

Early knowledge and discovery of Australia

The following paragraphs contain only a bare outline of the more important facts relating to the early history of Australian discovery. A more detailed summary of these facts may be found in Year Book No. 39 (*see* page 1) and earlier issues.

Terra Australis

Although references to an Austral land are found in the works of writers in the early centuries after Christ, and evidence appeared in maps, globes, and manuscripts from the Middle Ages onward, there is no definite evidence connecting this so-called *Terra Australis* with Australia. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the gulf of Carpentaria.

Early discoveries of Australia

The Portuguese may have discovered part of the Australian coast before 1542, and it has been suggested that the Arabs may have come to Australia even earlier, though there is no evidence to support this theory. For all practical purposes, however, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606 the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the island of New Guinea. During March 1606 the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years there were nine visits of Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642 Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644 Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

Discoveries by the English

In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnet*, a trading vessel whose crew had turned buccaneers. In 1699 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds, and reptiles observed, and of encounters with natives.

At the end of the seventeenth century it was uncertain whether Tasmania and New Zealand were parts of Australia or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though undertaken primarily for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, and accompanied by Sir Joseph Banks, the botanist, Dr Solander the naturalist, Green the astronomer, draughtsmen, and servants, Cook, after observing the transit of Venus at Tahiti, turned towards New Zealand, sighting that land on 7 October 1769 in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown.

Discovery of Australia by Captain Cook

On 20 April 1770* Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, on 29 April 1770* he discovered Botany Bay, where he landed. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11 June 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north sailing through Torres Strait and anchoring in the Downs on 13 July 1771. In 1772 Cook was put in command of the ships *Resolution* and *Adventure* with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14 February 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance, the existence of a channel between Tasmania and Australia, was made by Bass and Flinders in 1798.

The annexation of Australia

Possession taken of eastern coast of Australia by Captain Cook

Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23 August 1770 that the history of Australia was brought into definite political connection with western civilisation. It was on that date that Captain Cook took possession 'of the whole eastern coast, from latitude 38° S. to this place, latitude 10½° S., in right of His Majesty King George the Third', i.e. over only what are now the eastern parts of New South Wales, Victoria and Queensland.

Annexation of eastern part of Australian continent and Tasmania

Formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26 January 1788, when Captain Phillip's Commission, first issued to him on 12 October 1786 and amplified on 2 April 1787, was read to the people whom he had brought with him in the 'First Fleet'. The commission appointed Phillip 'Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longtitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south'.

Extension of New South Wales westward

On 17 February 1824 Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20 September 1824 of the coast from the 135th to the 129th degree of east longitude. On 16 July 1825 the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales.

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* Year Book No. 1 shows the dates of these events as '19th April' and '28th April' respectively. In Year Book No. 2 they had been changed to '20th of April' and '29th April', and the following footnote inserted:

'1. *Correct dates* of Captain Cook's Log. After the 180° meridian of longitude had been passed, and owing to no allowance having been made for westing, the various log-books of this voyage are in error one day as to dates. Thus those in Captain Cook's private log, in his official log, in Gunner Forwood's, Pickersgill's, Clerke's, Wilkinson's, and Bootie's Journals, in the Pallister copy of Cook's log, and in Wharton's publication, all need correction by adding one day to the date given: that is, the 19th should read the 20th, etc. The anonymous log, doubtless Green's, is erroneously supposed by the author of the " Historical Records of New South Wales." to have been corrected for westing, see the foot-note on page 269 therein. The facts are as follows:—What was known as " *ship time* " began a day earlier than under the present system of astronomical reckoning, that is to say, Jan. 1 began at noon Dec. 31. The "*Astronomical day*," however, was a whole day later than the *ship's day*: thus what would be assigned to the 24th in Cook's Journal would appear in Green's Journal as the 23rd. (See " Captain Cook's Journal," 1768-71, by Captain W. J. L. Wharton, R.N., F.R.S., London, 1893, preface pp. xii., xiii.) There can be no doubt as to the need of the correction in the dates, since on reaching Batavia the log reads:—" Wednesday 10th, according to our reckoning, but by the people here Thursday 11th." (Op. Cit., pp. 352–3.) Attention was drawn to this matter by Mr. P. de Jersey Grut in the " Argus," Melbourne, May 15, 18 and 22, 1907.'.

Annexation of Western Australia

An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9 November 1826, landed at the Sound on 26 December following, and on 21 January 1827 hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17 January 1827, and on his return in the following April submitted a glowing report on what he described as a 'rich and romantic country', urging its occupation for the purpose of settlement. He left for England in July 1827, continuing his advocacy, notwithstanding much discouragement, with unabated enthusiasm. He was at last successful, the result being due mainly to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June 1829. On the second of the preceding month Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of 'all that part of New Holland which is not included within the territory of New South Wales'. Thus before the middle of 1829 the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

The creation of the several Colonies

New South Wales

In Governor Phillip's commission of 1786 the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted (1,480,527 square miles, including Van Diemen's Land, 26,215 square miles), and of New Zealand (103,862 square miles), which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825 when the western boundary was extended to the 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles. Following the transfer of the Australian Capital Territory and an area at Jervis Bay to the Commonwealth in 1911 and 1915 respectively the area was further reduced to 309,433 square miles.

Lord Howe Island, which is a dependency of New South Wales, and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 30′ south, longitude 159° 5′ east, about 487 miles east-north-east of Sydney, and has an area of 3,220 acres.

Tasmania

Van Diemen's Land, first settled in 1803, was politically separated from New South Wales in 1825, being constituted a separate colony on 14 June. The area of the colony was 26,215 square miles. The name of the colony was officially changed to Tasmania in 1856 when responsible government was established. Following a resurvey of local government areas, the area of Tasmania was determined at 26,383 square miles at the end of 1964.

Macquarie Island, about 1,000 miles south-east of Hobart, together with a few rocky islets nearby, has been a dependency of Tasmania since the nineteenth century. In December 1911 five members of the Australasian Antarctic Expedition landed on the island and remained there until 1915. On 3 March 1948 another party was landed to man a new station which has since been maintained as a scientific base. The island is about twenty-one miles long and two miles wide.

Western Australia

The territory westward of the 129th meridian, comprising 975,920 square miles, was constituted a colony under the name of Western Australia in June 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see* above), which remained under the jurisdiction of New South Wales until 1831.

South Australia

On 15 August 1834 the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a 'province', and settlement took place towards the end of the year 1836. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28 December 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude and between the 141st* and 132nd meridians of east longitude. On 10 December 1861, by authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6 July 1863, the Northern Territory, comprising 523,620 square miles, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 903,690 square miles. The Territory was transferred to the Commonwealth on 1 January 1911 (*see* page 5).

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* The actual surveyed boundary is at 140° 58′ east longitude.

New Zealand

Although Captain Cook had taken possession of the North Island of New Zealand in November 1769, and of the South Island in January 1770, it is doubtful whether at the time when Captain Phillip's commission was drawn up New Zealand was considered as one of the 'islands adjacent in the Pacific Ocean' (*see* page 2). The fact that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, leaves this an open question, as nothing more than extra-territorial jurisdiction may have been intended. New Zealand does not appear to have become British territory unequivocally until 1840, when Captain Hobson arrived at the Bay of Islands, and on 30 January read his commissions, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. In February 1840 the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21 May 1840 British sovereignty over the islands of New Zealand was explicitly proclaimed. New Zealand remained a dependency of New South Wales until, by letters patent of 16 November 1840, it was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7 August 1840. Proclamation of the separation was made on 3 May 1841. The area of the colony was 103,862 square miles. The present area of New Zealand, which acquired responsible government on 7 May 1856 and Dominion status on 26 September 1907, exclusive of island territories but including minor islands, is 103,736 square miles.

Victoria

In 1851 the 'Port Phillip District' of New South Wales was constituted the colony of Victoria, 'bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia'. The area of the new colony was 87,884 square miles, and its separate existence took effect from 1 July 1851.

Queensland

The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt, and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6 June 1859, although separation from New South Wales was not completed until 10 December of the same year. The territory comprised by the new colony was 'so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8′ south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean'. The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13 March 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12 April 1862, the area of Queensland was increased by the annexation of 'so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria'. With this addition the area of Queensland became 670,500 square miles. Following a thorough revision of the area of each local government area of Queensland, based on the most recent maps available, the Surveyor-General in 1958 determined the area of Queensland as 667,000 square miles—a reduction of 3,500 square miles from the area previously determined.

The establishment of the Commonwealth of Australia

Federation

On 1 January 1901 the colonies mentioned, with the exception of New Zealand, were federated under the name of the 'Commonwealth of Australia', the designation of 'Colonies'—except in the case of the Northern Territory, to which the designation 'Territory' applied—being at the same time changed to that of 'States'.

Transfer of the Northern Territory to the Commonwealth

On 7 December 1907 the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act, 1907 and by the Commonwealth Parliament under the *Northern Territory Acceptance Act* 1910. The Territory was formally transferred to the Commonwealth on 1 January 1911, and became the Northern Territory of Australia.

By Imperial Order in Council dated 23 July 1931 Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth on 10 May 1934, in the *Ashmore and Cartier Islands Acceptance Act* 1933, under the name of the Territory of Ashmore and Cartier Islands. The Act authorised the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July 1938 annexed the islands to the Northern Territory, whose laws, ordinances, and regulations, wherever applicable, thereupon applied.

The area of Ashmore Reef is approximately 60 square miles (to the limit of the reef), and it is situated 220 statute miles off the western coast of Australia and 520 statute miles west of Darwin. Cartier Island is approximately 17 square miles in area (to the limit of the reef), and is situated 184 statute miles off the western coast of Australia and 490 statute miles west of Darwin.

Transfer of the Australian Capital Territory to the Commonwealth

On 18 October 1909 the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the Seat of Government of the Commonwealth. In December 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5 December 1910 a proclamation was issued vesting the Territory in the Commonwealth on and from 1 January 1911. By the *Jervis Bay Territory Acceptance Act* 1915 an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4 September 1915.

Present composition of the Commonwealth

Following revision of the areas of Tasmania and Queensland as mentioned on pages 3 and 4, and of the area of the Northern Territory during 1964, the total area of the Commonwealth of Australia has been determined as 2,967,909 square miles. The years in which the respective areas were annexed, the years of first permanent settlement, and the years in which responsible government was granted to the Colonies, and the present areas of the several States and Territories and of the Commonwealth are shown below.

THE COMMONWEALTH OF AUSTRALIA: COMPONENT STATES AND TERRITORIES

State or Territory	*Year of annexation*	*Year of first permanent settlement*	*Year of formation into separate Colony or Territory*	*Year in which responsible government was granted*	*Present area in square miles*
New South Wales	1770	1788	1786	1855	309,433
Victoria	1770	1834	1851	1855	87,884
Queensland	1770	1824	1859	(*a*)1859	667,000
South Australia	1788	1836	1834	1856	380,070
Western Australia	1829	1829	1829	1890	975,920
Tasmania	1788	1803	1825	1855	26,383
Northern Territory . . .	. .	. .	(*b*)1863	. .	520,280
Australian Capital Territory . .	. .	. .	(*c*)1911	. .	939
Commonwealth of Australia .	. .	. .	. .	(*d*)	**2,967,909**

(*a*) As a separate State—as part of New South Wales, in 1855. (*b*) Previously part of New South Wales then brought under the jurisdiction of South Australia in 1863—transferred to the Commonwealth in 1911. (*c*) Previously part of New South Wales. (*d*) Constituted as from 1 January 1901.

The Constitution of the Commonwealth

Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the federal movement in Australia, was embodied in this chapter in issues of the Year Book up to and including No. 22.

Commonwealth Constitution Act

The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: 'An Act to constitute the Commonwealth of Australia', as amended by the *Constitution Alteration* (*Senate Elections*) 1906, the *Constitution Alteration* (*State Debts*) 1909, the *Constitution Alteration* (*State Debts*) 1928, the *Constitution Alteration* (*Social Services*) 1946, and the *Constitution Alteration* (*Aboriginals*) 1967, is given *in extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31 December 1969.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT.

63 & 64 VICT., CHAPTER 12.

An Act to Constitute the Commonwealth of Australia. (*9th July, 1900.*)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State: and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. " The Commonwealth " shall mean the Commonwealth of Australia as established under this Act.

" The States " shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called " a State."

" Original States " shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

Chapter I.—The Parliament:
  Part I.—General:
  Part II.—The Senate:
  Part III.—The House of Representatives:
  Part IV.—Both Houses of the Parliament:
  Part V.—Powers of the Parliament:
Chapter II.—The Executive Government:
Chapter III.—The Judicature:
Chapter IV.—Finance and Trade:
Chapter V.—The States:
Chapter VI.—New States:
Chapter VII.—Miscellaneous:
Chapter VIII.—Alteration of the Constitution.
The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament", or "The Parliament of the Commonwealth".

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.[*] The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,[†] and the places of those of the second class at the expiration of [the sixth year] *six years*,[†] from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before*[†] the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July*[†] following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July*[†] preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

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[*] The Parliament has otherwise provided, by means of the *Representation Act* 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18 May 1948).

[†] As amended by Section 2 of the *Constitution Alteration* (*Senate Elections*) 1906. The words in square brackets have been repealed; amendments are shown in italics.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

(i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;

(ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales . .	twenty-three;	South Australia . .	six;
Victoria	twenty;	Tasmania . . .	five;
Queensland . . .	eight;		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales . .	twenty-six	South Australia . .	seven;
Victoria	twenty-three;	Western Australia .	five;
Queensland . . .	nine;	Tasmania . . .	five.

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.[*]

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.[†]

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

Part IV.—Both Houses of the Parliament.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

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[*] The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act* 1918–1965, Sections 39 and 39A (repealing an earlier provision made by the *Commonwealth Franchise Act* 1902). For present qualifications *see* Chapter 3, General Government.

[†] The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act* 1918–1965, Section 69. For present qualifications *see* Chapter 3, General Government.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

(i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
(ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
(iii) Is an undischarged bankrupt or insolvent: or
(iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
(v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section (iv) does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

(i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
(ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
(iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

(i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
(ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

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* The Parliamentary allowance has been varied from time to time. For current allowances, *see* Chapter 3, General Government.

PART V.—POWERS OF THE PARLIAMENT.*

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:—

(i) Trade and commerce with other countries, and among the States:

(ii) Taxation; but so as not to discriminate between States or parts of States:

(iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:

(iv) Borrowing money on the public credit of the Commonwealth:

(v) Postal, telegraphic, telephonic, and other like services:

(vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:

(vii) Lighthouses, lightships, beacons and buoys:

(viii) Astronomical and meteorological observations:

(ix) Quarantine:

(x) Fisheries in Australian waters beyond territorial limits:

(xi) Census and statistics:

(xii) Currency, coinage, and legal tender:

(xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:

(xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned:

(xv) Weights and measures:

(xvi) Bills of exchange and promissory notes:

(xvii) Bankruptcy and insolvency:

(xviii) Copyrights, patents of inventions and designs, and trade marks:

(xix) Naturalization and aliens:

(xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:

(xxi) Marriage:

(xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:

(xxiii) Invalid and old-age pensions:

(xxiiiA) †*The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*

(xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:

(xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:

(xxvi) The people of any race [other than the aboriginal race in any State]‡ for whom it is deemed necessary to make special laws:

(xxvii) Immigration and emigration:

(xxviii) The influx of criminals:

(xxix) External affairs:

(xxx) The relations of the Commonwealth with the islands of the Pacific:

(xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:

(xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:

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* Particulars of proposed laws which were submitted to referendums are referred to in Chapter 3, General Government of this Year Book.

† Under Section 2 of the *Constitution Alteration (Social Services)* 1946, the Constitution was amended by the insertion of this paragraph.

‡ Under Section 2 of the *Constitution Alteration (Aboriginals)* 1967, the words in square brackets were omitted.

(xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:

(xxxiv) Railway construction and extension in any State with the consent of that State:

(xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:

(xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:

(xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matters is referred, or which afterwards adopt the law:

(xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:

(xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:

(ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:

(iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he witholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to adminster such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which, until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

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* The number of Ministers of State and the annual appropriation for their salaries have been varied from time to time. For current particulars, *see* Chapter 3, General Government.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:
Naval and military defence:
Lighthouses, lightships, beacons, and buoys:
Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.*

72. The Justices of the High Court and of the other Courts created by the Parliament—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.†

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

(i) Of any Justice or Justices exercising the original jurisdiction of the High Court:

(ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:

(iii) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits inter se of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits inter se of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

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* The *Judiciary Act* 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six.

† The *Judiciary Act* 1903 provided for the payment of a salary of £3,500 ($7,000) a year to the Chief Justice and of £3,000 ($6,000) a year to each other Justice. These amounts have been varied from time to time.

75. In all matters—

- (i) Arising under any treaty:
- (ii) Affecting consuls or other representatives of other countries:
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
- (iv) Between States, or between residents of different States, or between a State and a resident of another State:
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation:
- (ii) Arising under any laws made by the Parliament:
- (iii) Of Admiralty and maritime jurisdiction:
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court:
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State and who is by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

(i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary:

(ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:

(iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:

(iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

(i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.

(ii) The Commonwealth shall debit to each State—

(*a*) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;

(*b*) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.

(iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:

(ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard

being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (1.) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

(*a*) *the taking over of such debts by the Commonwealth;*

(*b*) *the management of such debts;*

(*c*) *the payment of interest and the provision and management of sinking funds in respect of such debts;*

(*d*) *the consolidation, renewal, conversion, and redemption of such debts;*

(*e*) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*

(*f*) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2.) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3.) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4.) *Any such agreement may be varied or rescinded by the parties thereto.*

(5.) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6.) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

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* Under Section 2 of the *Constitution Alteration* (*State Debts*) 1909, the words in square brackets were omitted.

† Under Section 2 of the *Constitution Alteration* (*State Debts*) 1928, the Constitution was amended by the insertion of this section.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the Seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

*[127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.]

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

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* Under Section 3 of the *Constitution Alteration (Aboriginals)* 1967 the section in square brackets was repealed.

The Royal Proclamation

The preceding Act received the Royal assent on 9 July 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17 September 1900, constituted the Commonwealth as from 1 January 1901; it read as follows.

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

> WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled " An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland* and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.
>
> And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.
>
> We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.
>
> Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.
>
> GOD SAVE THE QUEEN.

The External Territories of Australia*

Norfolk Island

In 1856 Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony, and finally by the passage of the *Norfolk Island Act* 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 3′ 3″ S., longitude 167° 57′ 5″ E., and comprises an area of approximately 14 square miles.

Papua

Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1 September 1906, under the authority of the *Papua Act* 1905. The area of Papua is about 86,100 square miles.

Trust Territory of New Guinea

In 1919 it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25′ E. The mandate was issued by the League of Nations on 17 December 1920. The Governor-General of the Commonwealth was authorised to accept the mandate by the *New Guinea Act* 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The land area comprises about 92,160 square miles, and the administration under the mandate dated from 9 May 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved on 13 December 1946.

Australian Antarctic Territory

An Imperial Order in Council of 7 February 1933 placed under Australian authority 'all the islands and territories other than Adelie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude'.

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* Until 31 January 1968 included the former Trust Territory of Nauru, which became independent as the Republic of Nauru on that date. For further information on Nauru *see* Year Book No. 54, pages 22–3 and 1174, and earlier issues.

The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passing of the *Australian Antarctic Territory Acceptance Act* 1933 by the Commonwealth Parliament. The boundaries of Adelie Land were definitely fixed by a French Decree of 1 April 1938 as latitude 60° S., longitude 136° E., and longitude 142° E.

Heard and McDonald Islands

Heard and McDonald Islands, about 2,500 miles south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26 December 1947. Heard Island is approximately 27 miles long and 13 miles wide, and McDonald Islands, about 26 miles to the west of Heard Island, are small, rocky and precipitous.

Cocos [Keeling] Islands

The Cocos (Keeling) Islands Act 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23 November 1955 as the date of transfer. From that date the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands. Their area is about 5½ square miles, and they are situated in the Indian Ocean in latitude 12° 5′ S. and longitude 96° 53′ E.

Christmas Island

The *Christmas Island Act* 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1 October 1958, and an Official Representative was appointed to administer the Territory. The area of the island is about 52 square miles and it is situated in the Indian Ocean in latitude 10° 25′ 22″ S. and longitude 105° 39′ 59″ E.

CHAPTER 2

PHYSICAL GEOGRAPHY AND CLIMATE

General description of Australia

Geographical position

The Australian Commonwealth, which includes the island continent of Australia and the island of Tasmania, is situated in the Southern Hemisphere, and comprises an area of 2,967,909 square miles, the mainland alone containing 2,941,526 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 9′ E. and 153° 39′ E., while its northern and southern limits are the parallels of latitude 10° 41′ S. and 43° 39′ S., or, excluding Tasmania, 39° 8′ S. On its north are the Timor and Arafura Seas and Torres Strait, on its south the Southern Ocean*. The extreme points are Steep Point on the West, Cape Byron on the east, Cape York on the north, and South-East Cape or, if Tasmania be excluded, Wilson's Promontory, on the south. The difference in latitude between Cape York and Wilson's Promontory is 1,959 miles, and in longitude between Steep Point and Cape Byron 2,489 miles.

Tropical and temperate regions

Of the total area of Australia, nearly 39 per cent lies within the tropics. Taking the latitude of the Tropic of Capricorn as 23° 30′ S., the areas within the tropical and temperate zones are approximately as follows.

AREAS OF TROPICAL AND TEMPERATE REGIONS: STATES AND TERRITORIES

(Square miles)

Area	*N.S.W. (a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Total*
Within tropical zone .	..	..	360,642	..	364,000	..	422,980	1,147,622
„ temperate zone	310,372	87,884	306,358	380,070	611,920	26,383	97,300	1,820,287
Total area .	**310,372**	**87,884**	**667,000**	**380,070**	**975,920**	**26,383**	**520,280**	**2,967,909**

(*a*) Includes Australian Capital Territory (939 square miles).

Fifty-four per cent of Queensland lies within the tropical zone and 46 per cent in the temperate zone; 37 per cent of Western Australia is tropical and 63 per cent temperate; while 81 per cent of the Northern Territory is tropical and 19 per cent temperate. All the remaining States lie within the temperate zone.

Area of Australia compared with areas of other countries

The area of Australia is almost as great as that of the United States of America excluding Alaska, four-fifths of that of Canada, more than half as large again as Europe excluding the U.S.S.R., and about twenty-five times that of Great Britain and Ireland. The areas of Australia and of certain other countries are shown in the table on the following page. The areas shown are in the main obtained from the *Statistical Yearbook* 1967, published by the Statistical Office of the United Nations, and the countries have been arranged in accordance with the continental groups used therein.

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* The Southern Ocean is a local designation for the part of the Indian Ocean lying between the southern shores of Australia and Antarctica.

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *circa* 1966

('000 square miles)

Country	*Area*
Continental divisions—	
Europe(*a*)	1,903
Asia(*a*)	10,629
U.S.S.R. (Europe and Asia)	8,649
Africa	11,704
North and Central America and West Indies	9,362
South America	6,889
Oceania	3,286
Total, World, excluding Arctic and Antarctic regions	**52,422**
Europe(*a*)—	
France	211
Spain (including possessions)	195
Sweden	174
Finland	130
Norway	125
Poland	121
Italy	116
Yugoslavia	99
Germany, Federal Republic of	96
United Kingdom	94
Romania	92
Other	451
Total, Europe(*a*)	*1,903*
Asia(*a*)—	
China (mainland)	3,692
India	1,176
Saudi Arabia	830
Iran	636
Mongolia	604
Indonesia	576
Pakistan	366
Trucial Oman	301
Turkey	301
Burma	262
Afghanistan	250
Thailand	198
Iraq	168
Other	1,269
Total, Asia(*a*)	*10,629*
U.S.S.R.—	
Total, U.S.S.R.	*8,649*
Africa—	
Sudan	967
Algeria	920
Congo, Democratic Republic of	906
Libya	679
Chad	496
Africa—*continued*	
Niger	489
Angola	481
Ethiopia	472
South Africa, Republic of	471
Mali	479
Mauritania	398
United Arab Republic	386
Tanzania, United Republic of	363
Nigeria	357
South-West Africa	318
Mozambique	302
Zambia	291
Somalia	246
Central African Republic	241
Madagascar	227
Kenya	225
Other	1,990
Total, Africa	*11,704*
North and Central America—	
Canada	3,852
United States of America(*b*)	3,615
Greenland	840
Mexico	762
Nicaragua	50
Cuba	44
Honduras	43
Other	155
Total, North and Central America	*9,362*
South America—	
Brazil	3,286
Argentina	1,072
Peru	496
Colombia (excluding Panama)	440
Bolivia	424
Venezuela	352
Chile	292
Paraguay	157
Ecuador	109
Other	260
Total, South America	*6,889*
Oceania—	
Australia	2,968
New Zealand	104
New Guinea(*c*)	92
Papua	86
Other	36
Total, Oceania	*3,286*

(*a*) Excludes U.S.S.R., shown below. (*b*) Includes Hawaii, (*c*) Australian Trust Territory. Western New Guinea (West Irian) is included in Other Asia.

AREAS OF STATES AND TERRITORIES, AND STANDARD TIMES

State or Territory	*Area*	*Percentage of total area*	*Standard times*	
			Meridian selected	*Ahead of G.M.T.*
	sq miles			hours
New South Wales	309,433	10.43	150° E.	10
Victoria	87,884	2.96	150° E.	10
Queensland	667,000	22.47	150° E.	10
South Australia	380,070	12.81	142°30′ E.	9½
Western Australia	975,920	32.88	120° E.	8
Northern Territory	520,280	17.53	142°30′ E.	9½
Australian Capital Territory	939	0.03	150° E.	10
Mainland	*2,941,526*	*99.11*	..	..
Tasmania	26,383	0.89	150° E.	10
Australia	**2,967,909**	**100.00**	..	..

The coastline of Australia is approximately 12,000 miles long—New South Wales, 700 miles; Victoria, 700 miles; Queensland, 3,200 miles; South Australia, 1,500 miles; Western Australia, 4,000 miles; Northern Territory, 1,000 miles; Australian Capital Territory, Jervis Bay area included in New South Wales; Tasmania, 900 miles. These measurements are broadly on a 'direct' basis, but even so they must be regarded as approximate only.

Geographical features of Australia

The following description is a broad summary of the main physical characteristics of the Australian continent.

A section through the Australian continent from east to west, at the point of its greatest breadth, shows first a narrow belt of coastal plain. This plain, extending north and south along the whole east coast, is well watered by rivers. It is of variable width, seldom more than sixty or seventy miles, and occasionally only a few miles, the average being roughly about forty to fifty miles. Bordering this plain is the Great Dividing Range, which extends from the north of Queensland to the south of New South Wales, and thence one branch sweeps westwards towards the boundary of Victoria and South Australia, and the other, the main branch, terminates in Tasmania. This range, which rises, often abruptly, from the plain, frequently presents bold escarpments on its eastern face, but the descent on its western slopes is gradual, until, in the country to the north of Spencer's Gulf, the plain is not above sea-level and occasionally even below it. Thence there is another almost imperceptible rise until the mountain ranges of Western Australia are reached, and beyond these lies another coastal plain. The mountains of Australia are relatively low, the highest peak, Mount Kosciusko, in New South Wales, being only about 7,300 feet. Three-quarters of the land-mass of Australia lies between the 600 and 1,500 feet contours in the form of a huge plateau, constituting the most distinctive feature of the Australian continent, to which the peculiarities of Australia's climate can probably be largely ascribed.

The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall and those of the central plains with very slight fall. Of the former not many are navigable for any distance from their mouths, and bars make many of them difficult of access or inaccessible from the sea.

The longest two rivers of the northern part of the east coast are the Burdekin and the Fitzroy in Queensland. The Hunter is the largest coastal river of New South Wales, and the Murray River, with its great tributary the Darling, drains part of Queensland, the major part of New South Wales, and a large part of Victoria, finally flowing into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 1,600 miles, 400 being in South Australia and 1,200 constituting the boundary between New South Wales and Victoria. The total length of the Murray-Darling from the source of the Darling to the mouth of the Murray is about 2,300 miles. The rivers of the north-west coast of Australia (Western Australia), e.g. the Murchison, Gascoyne, Ashburton, Fortesque, De Grey, Fitzroy, Drysdale, and Ord are of considerable size. So also are those in the Northern Territory, e.g. the Victoria and Daly, and those on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert, and Mitchell. The Rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

The 'lakes' of Australia may be divided into three classes: true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up, and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse. The second class is the only one which seems to demand special mention. These are a characteristic of the great central plain of Australia. Some of them, such as Lakes Torrens, Gairdner, Eyre, and Frome, are of considerable extent.

For further information on the geographical features of Australia earlier issues of the Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

Weather and climate of Australia

This section has been prepared by the Director of the Commonwealth Bureau of Meteorology, and the various States and Territories have been arranged in the standard order adopted by that Bureau. The section concludes with a brief summary of the weather of 1969.

Introduction

Australia extends from about latitude 10° S. to latitude 44° S., but owing largely to the moderating effects of the surrounding oceans and the absence of very pronounced and extensive mountain masses it is less subject to extremes of climate than are regions of similar size in other parts of the world. The average elevation of the land surface is low—probably close to 900 feet above the sea; while the maximum altitude is just above 7,300 feet. Latitude for latitude the Australian climate is generally more temperate than that of the other large land masses of the earth, although it varies considerably from the tropical to the alpine.

The Australian meteorological seasons are: Summer—December, January, February; Autumn—March, April, May; Winter—June, July, August; Spring—September, October, November.

The following general discussion of the climate of Australia is necessarily brief. However, extensive records of Australian climatic data are held and published in various forms by the Bureau of Meteorology. A programme of regional climatic survey has been in progress for some years, and a large number of studies have been published by the Bureau of Meteorology, by the Department of National Development, and by State Development Authorities. The Bureau of Meteorology welcomes inquiries for climatic information, which may be made at its Central Office in Melbourne or through the Regional Offices which are situated in each of the State capital cities and in Canberra and Darwin. Reference may also be made to various bulletins and research papers mentioned in this text for more detailed information on particular topics.

Precipitation

Precipitation of moisture from the atmosphere may take various forms depending chiefly on the thermal conditions existing at the time. Within the Australian region precipitation occurs chiefly as rain because of the generally mild temperatures, but may also occur as snow or hail. Broadly, the immediate physical cause of rainfall may be said to be the lifting of moist air with resultant cooling, condensation into cloud, and eventual precipitation of the heavy water droplets as rain. This process may be achieved by three different means each of which may be combined with either or both of the others:

(*a*) Orographic lifting caused by winds blowing onto rising terrain;
(*b*) convectional lifting resulting in the development of individual rain clouds of the cumulus or cumulonimbus type producing showers and thunderstorms;
(*c*) lifting of a warm air mass as it rises over cooler air—known as a 'frontal' process.

Average annual rainfall. The distribution of the average annual rainfall over Australia is shown in plate 2 page 30, while plate 3 page 31 shows the distribution in 1969.

While Australia is a continent of comparatively low relief, the orographic processes in rain production are very marked in the chain of the Great Dividing Range bordering the whole east coast of the continent, in the ranges of the south-western corner of Western Australia, and in Tasmania. Thus on the east coast the higher rainfall areas lie between the ranges and the Pacific Ocean in the region of prevailing south-east wind circulation. In Tasmania and the south-west of Western Australia the region of high rainfall lies between the ranges and the ocean to the west, these areas lying in a region of predominantly westerly wind flow.

The north-western part of the continent and to some extent the whole region of the Northern Territory and inland north Queensland comes under the influence of the Australian-Asian monsoon. This results in high rainfalls in a summer wet season with the inflow of moist air from the north-west, and a winter dry season with predominantly south-east winds blowing across the dry regions of the interior and producing little rainfall. Tropical cyclones affect the waters adjacent to the north-east and north-west of Australia between December and April. Their frequency varies greatly from season to season, but on the average about three of these disturbances occur in the Coral Sea each season and about two in the eastern Indian Ocean adjacent to the west coast of the continent. When tropical cyclones move close to the tropical coast of the continent they cause very heavy rainfalls over the coastal regions. On occasions these cyclones move over the land and lose intensity, but many still continue to be accompanied by heavy rainfall along their path.

Southern Australia lies in the region of the mid-latitude westerlies for the winter half of the year and is subject to the rain-producing influences of the great depressions of the Southern Ocean and their associated frontal systems. The combined effects of these systems and the topography lead to high winter rainfalls in south-western and south-eastern Australia and in Tasmania, with the highest falls occurring on the windward side of the mountains. The rainfall generally decreases inland with distance from the coast, although the 10-inch isohyet reaches the shore of the Great Australian Bight and the central western coast of Western Australia in regions which are of very flat relief and which, because of their position and the orientation of the coastline, are only rarely exposed to moist winds.

AREA DISTRIBUTION OF AVERAGE ANNUAL RAINFALL: STATES AND TERRITORIES

(Per cent)

Average annual rainfall	*W.A.*	*N.T.*	*S.A.*	*Qld*	*N.S.W. (a)*	*Vic.*	*Tas.*	*Total*
Under 10 inches . . .	58.0	24.7	82.8	13.0	19.7	Nil	Nil	39.0
10 and under 15 inches . .	22.4	32.4	9.4	14.4	23.5	22.4	Nil	20.6
15 ,, ,, 20 ,, . .	6.8	9.7	4.5	19.7	17.5	15.2	0.7	11.2
20 ,, ,, 25 ,, . .	3.7	6.6	2.2	18.8	14.2	17.9	11.0	9.0
25 ,, ,, 30 ,, . .	3.7	9.3	0.8	11.6	9.1	18.0	11.4	7.2
30 ,, ,, 40 ,, . .	3.3	4.7	0.3	11.1	9.9	16.1	20.4	6.1
40 inches and over . . .	2.1	12.6	Nil	11.4	6.1	10.4	56.5	6.9
Total . . .	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Includes Australian Capital Territory.

The region with the highest average annual rainfall is the east coast of Queensland between Port Douglas and Cardwell, where Tully has an annual average of 177 inches. A further very high rainfall region is the mountainous west coast of Tasmania, where Lake Margaret has the highest average annual total of 145 inches. The area of lowest average annual rainfall is that of some 180,000 square miles surrounding Lake Eyre in South Australia, where on the average only 4 to 6 inches are received annually. The lowest average over a long period of record is at Troudaninna—4.13 inches. Rain occurs very irregularly, averaging only about one or two days a month in this region.

Of all the continents (excluding Antarctica), Australia receives the least average depth of rainfall and has the least run-off from its rivers into the oceans. Only in relatively small areas of the continent could the rainfall be described as abundant.

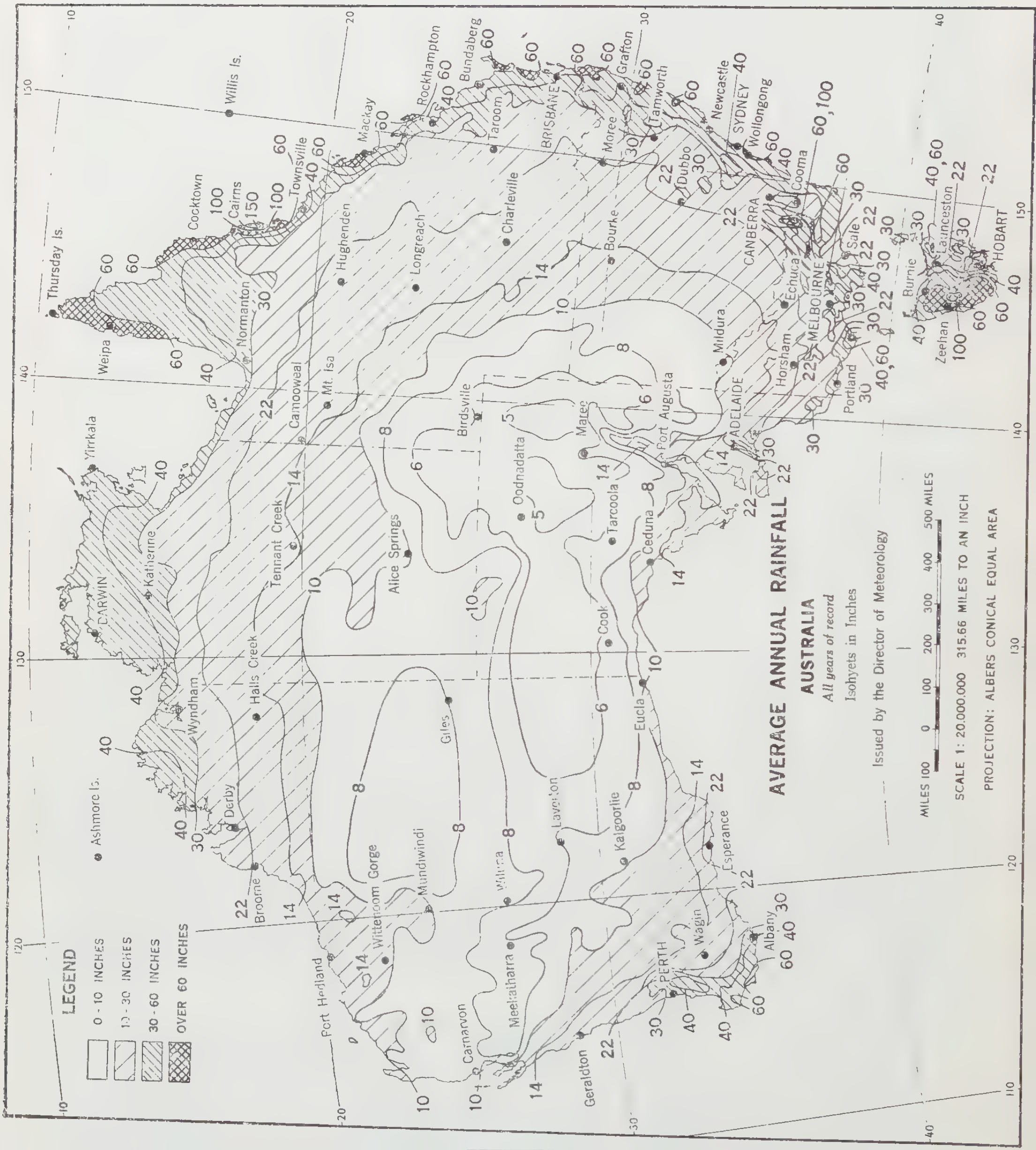
Seasonal distribution of rainfall. The average monthly distribution of rainfall in the various Australian rainfall districts is shown by the histograms of plate 4, page 32.

The following are the most marked features.

(*a*) The clearly defined wet summer and dry winter of the monsoon region of northern Australia.

(*b*) The more regular distribution of rainfall throughout the year in south-eastern Australia. In the region to the south and west of the Great Dividing Range a less pronounced maximum of rainfall is noticeable in the winter or early spring. On the Gippsland (eastern Victoria) coast the rainfall is fairly evenly distributed throughout the year, but further along the east coast of the continent the rainfall minimum in late winter and early spring begins to appear and becomes more marked as the tropical regions are approached.

(*c*) The marked rainfall maximum in the south-western districts of Western Australia in winter—the period of the most active southern depressions and frontal systems in this region.


LEGEND
0 - 10 INCHES
10 - 30 INCHES
30 - 60 INCHES
OVER 60 INCHES
AVERAGE ANNUAL RAINFALL
AUSTRALIA
All years of record
Isohyets in Inches
Issued by the Director of Meteorology
MILES 100 0 100 200 300 400 500 MILES
SCALE 1: 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is.
Weipa
Cocktown
Cairns
Townsville
Willis Is.
Mackay
Rockhampton
Bundaberg
BRISBANE
Grafton
Tamworth
Newcastle
SYDNEY
Wollongong
CANBERRA
Cooma
MELBOURNE
Sale
Portland
Horsham
Echuca
Mildura
ADELAIDE
Port Augusta
Burnie
Launceston
Zeehan
HOBART
Normanton
Hughenden
Longreach
Charleville
Taroom
Moree
Dubbo
Bourke
Birdsville
Marree
Oodnadatta
Tarcoola
Ceduna
Cook
Eucla
Camooweal
Mt. Isa
Alice Springs
Tennant Creek
Yirrkala
DARWIN
Katherine
Wyndham
Halls Creek
Giles
Derby
Ashmore Is.
Broome
Port Hedland
Wittenoom Gorge
Mundiwindi
Wiluna
Laverton
Kalgoorlie
Esperance
Carnarvon
Meekatharra
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PERTH
Wagin
Albany
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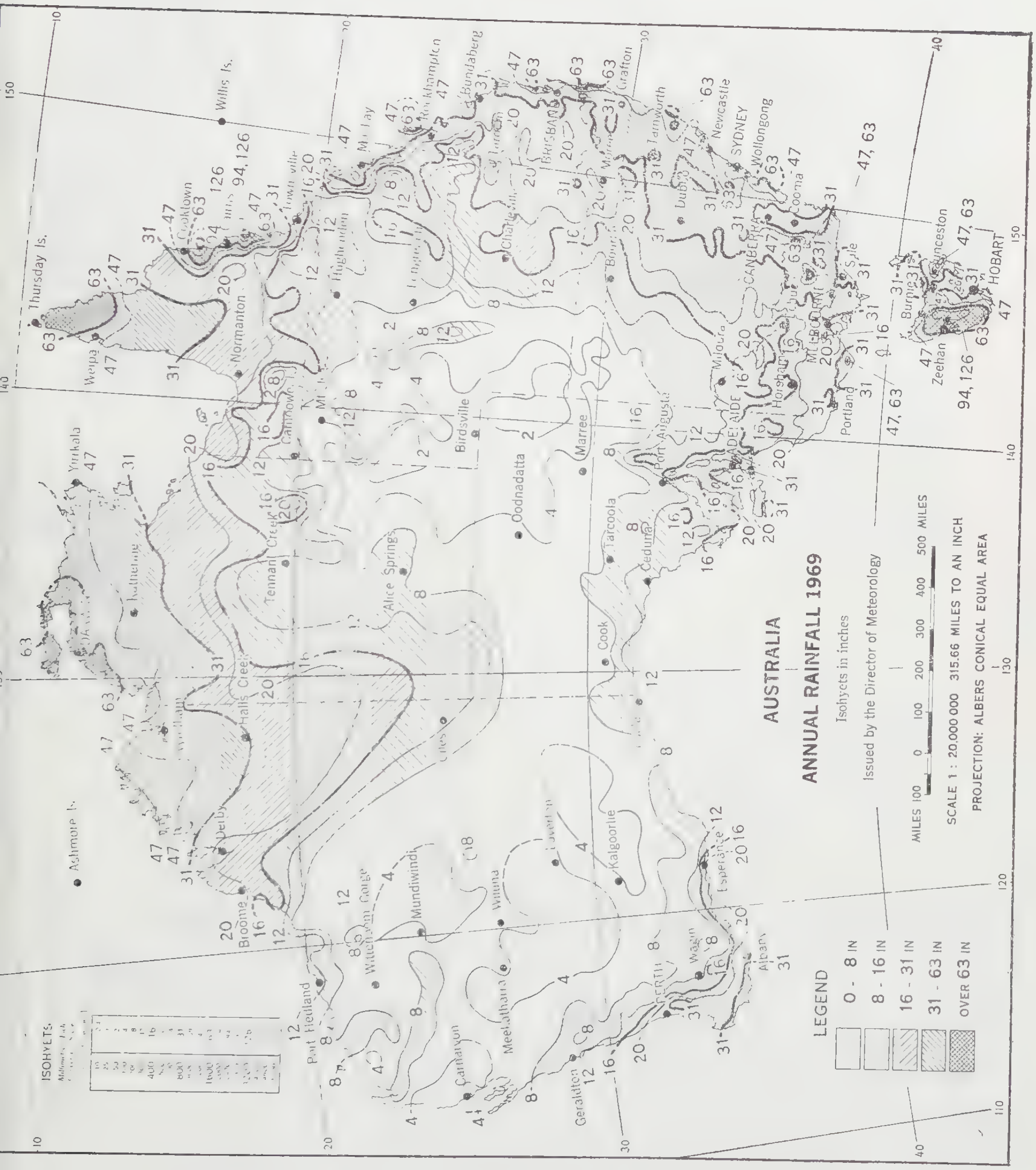
PLATE 2


AUSTRALIA
ANNUAL RAINFALL 1969
Isohyets in inches
Issued by the Director of Meteorology
MILES 100 0 100 200 300 400 500 MILES
SCALE 1 : 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
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8 - 16 IN
16 - 31 IN
31 - 63 IN
OVER 63 IN
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Weipa
Cooktown
Cairns
Townsville
Hughenden
Mackay
Rockhampton
Bundaberg
Charleville
BRISBANE
Grafton
Tamworth
Newcastle
SYDNEY
Wollongong
CANBERRA
Cooma
Dubbo
Bourke
Mildura
MELBOURNE
Sale
Horsham
Portland
ADELAIDE
Port Augusta
Ceduna
Tarcoola
Cook
Marree
Oodnadatta
Birdsville
Normanton
Camooweal
Mt Isa
Tennant Creek
Alice Springs
Katherine
Yirrkala
Wyndham
Halls Creek
Giles
Derby
Broome
Port Hedland
Wittenoom Gorge
Mundiwindi
Wiluna
Meekatharra
Carnarvon
Geraldton
PERTH
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Albany
Esperance
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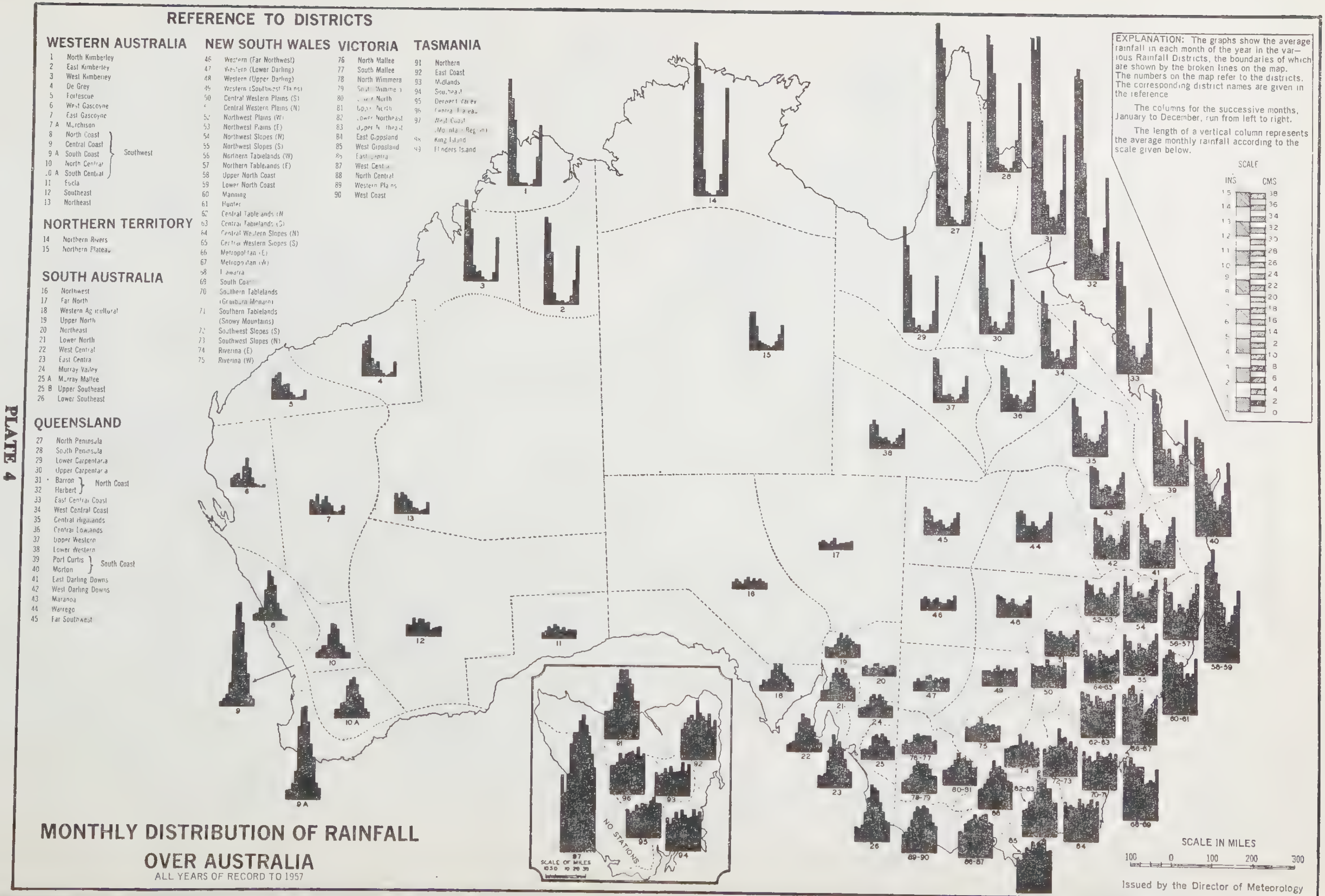
PLATE 3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96
97
NO STATIONS
SCALE OF MILES
SCALE
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CMS
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38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0
SCALE IN MILES
100 0 100 200 300

REFERENCE TO DISTRICTS

WESTERN AUSTRALIA

1	North Kimberley	
2	East Kimberley	
3	West Kimberley	
4	De Grey	
5	Fortescue	
6	West Gascoyne	
7	East Gascoyne	
7 A	Murchison	
8	North Coast	
9	Central Coast	
9 A	South Coast	Southwest
10	North Central	
10 A	South Central	
11	Eucla	
12	Southeast	
13	Northeast	

NORTHERN TERRITORY

14	Northern Rivers
15	Northern Plateau

SOUTH AUSTRALIA

16	Northwest
17	Far North
18	Western Agricultural
19	Upper North
20	Northeast
21	Lower North
22	West Central
23	East Central
24	Murray Valley
25 A	Murray Mallee
25 B	Upper Southeast
26	Lower Southeast

QUEENSLAND

27	North Peninsula	
28	South Peninsula	
29	Lower Carpentaria	
30	Upper Carpentaria	
31	Barron	North Coast
32	Herbert	
33	East Central Coast	
34	West Central Coast	
35	Central Highlands	
36	Central Lowlands	
37	Upper Western	
38	Lower Western	
39	Port Curtis	South Coast
40	Morton	
41	East Darling Downs	
42	West Darling Downs	
43	Maranoa	
44	Warrego	
45	Far Southwest	

NEW SOUTH WALES

46	Western (Far Northwest)
47	Western (Lower Darling)
48	Western (Upper Darling)
49	Western (Southwest Plains)
50	Central Western Plains (S)
51	Central Western Plains (N)
52	Northwest Plains (W)
53	Northwest Plains (E)
54	Northwest Slopes (N)
55	Northwest Slopes (S)
56	Northern Tablelands (W)
57	Northern Tablelands (E)
58	Upper North Coast
59	Lower North Coast
60	Manning
61	Hunter
62	Central Tablelands (N)
63	Central Tablelands (S)
64	Central Western Slopes (N)
65	Central Western Slopes (S)
66	Metropolitan (E)
67	Metropolitan (W)
68	Illawarra
69	South Coast
70	Southern Tablelands (Goulburn Monaro)
71	Southern Tablelands (Snowy Mountains)
72	Southwest Slopes (S)
73	Southwest Slopes (N)
74	Riverina (E)
75	Riverina (W)

VICTORIA

76	North Mallee
77	South Mallee
78	North Wimmera
79	South Wimmera
80	Lower North
81	Upper North
82	Lower Northeast
83	Upper Northeast
84	East Gippsland
85	West Gippsland
86	East Central
87	West Central
88	North Central
89	Western Plains
90	West Coast

TASMANIA

91	Northern
92	East Coast
93	Midlands
94	Southeast
95	Derwent Valley
96	Central Plateau
97	West Coast (Mountain Region)
98	King Island
99	Flinders Island

EXPLANATION: The graphs show the average rainfall in each month of the year in the various Rainfall Districts, the boundaries of which are shown by the broken lines on the map. The numbers on the map refer to the districts. The corresponding district names are given in the reference

The columns for the successive months, January to December, run from left to right.

The length of a vertical column represents the average monthly rainfall according to the scale given below.

MONTHLY DISTRIBUTION OF RAINFALL OVER AUSTRALIA

ALL YEARS OF RECORD TO 1957

Issued by the Director of Meteorology

PLATE 4

For further information on monthly rainfalls reference may be made to the various Australian rainfall bulletins, to the Climatological Surveys of particular districts, and to the annual rain maps and books of normals (standard 30 year periods), all published by the Bureau of Meteorology.

Variability of rainfall. For most agricultural pursuits a more important criterion of the value of rainfall is its variability or reliability. The adequate description of rainfall variability over an extensive geographical area is a matter of some difficulty. Probably the best available measures are to be found in the tables which have been calculated for a number of individual stations in some of the Climatological Survey districts. These tables show the percentage chances of receiving specified amounts of rainfall in monthly seasonal or annual time spans. Statistical indexes of rainfall variation based on a number of different techniques have been used to produce maps which show the main features of the variability of annual rainfall over Australia. A discussion of these methods and the maps is given by F. Loewe in *Some Considerations Regarding the Variability of Annual Rainfall in Australia*, Bureau of Meteorology Bulletin No. 39 (1948).

In general it may be stated that the regions of most reliable rainfall are the south-west of Western Australia, western Tasmania, and western and southern Victoria south of the divide. These areas have one of the most reliable rainfalls in the world. Elsewhere in Australia the degree of variability, in general, increases inland, but the region of the highest variability for low average annual rainfalls extends across the central part of the continent from south-western Queensland to the central coast of Western Australia. Some outstanding examples of the numerous instances of high rainfall variability throughout Australia are given below.

At Onslow (Western Australia) annual totals vary from 0.05 inches to 28 inches, and in the four consecutive years 1921 to 1924 the annual totals were 22.25, 2.71, 26.82, and 2.18 inches respectively. At Whim Creek, where 29.41 inches have been recorded in a single day, only 17 points (0.17 inches) were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas, e.g. at Tully the annual rainfalls have varied from 310.92 inches in 1950 to 104.98 inches in 1943.

The following table of annual rainfall for the Australian capital cities for the past thirty years indicates the variation in rainfall at these sites.

RAINFALL: AUSTRALIAN CAPITAL CITIES, 1939 TO 1968

	Perth		*Adelaide*		*Brisbane*		*Sydney*		*Canberra(a)*		*Melbourne*		*Hobart(b)*	
ear	*Amount*	*No. of days*	*Amount*	*No. of days*	*Amount*	*No. of days*	*Amount*	*No. of days*	*Amount*	*No. of days*	*Amount*	*No. of days*	*Amount*	*No. of days*
	in		in		in		in		in		in		in	
39 . . .	45.70	123	23.29	139	41.43	122	33.67	127	n.a.	n.a.	33.11	166	27.23	188
40 . . .	20.00	98	16.16	116	42.37	93	39.34	125	14.65	67	19.83	126	17.17	135
41 . . .	34.74	122	22.56	126	31.50	105	26.74	129	21.33	93	31.78	157	23.49	145
42 . . .	39.24	140	25.44	133	44.01	125	48.29	121	25.18	108	29.79	148	19.42	163
43 . . .	31.46	117	17.84	135	50.68	126	50.74	136	22.82	141	18.80	150	20.84	149
44 . . .	27.39	123	17.13	114	27.85	100	31.04	115	11.96	82	21.32	143	26.23	151
45 . . .	52.67	137	17.85	105	48.16	130	46.47	136	23.76	. .	19.22	152	16.92	157
46 . . .	41.47	122	22.59	135	38.66	83	36.05	111	20.53	102	29.80	177	39.45	193
47 . . .	43.42	137	21.89	146	60.30	146	41.45	137	26.30	121	30.47	163	38.61	181
48 . . .	34.75	126	21.40	122	41.54	106	38.83	131	31.49	104	20.98	155	23.42	178
49 . . .	27.15	126	18.23	119	47.18	121	66.26	149	25.42	115	31.41	163	22.85	157
50 . . .	32.27	122	16.06	91	63.93	152	86.63	183	41.79	124	26.18	147	19.25	131
51 . . .	34.14	127	25.44	135	33.89	87	53.15	143	18.97	95	29.85	155	24.57	163
52 . . .	39.28	123	19.99	128	33.49	122	59.19	130	37.98	143	34.39	177	30.35	165
53 . . .	37.14	119	20.00	121	43.60	101	40.86	110	19.42	110	28.38	148	28.06	162
54 . . .	28.05	112	16.73	109	61.36	142	41.29	134	18.00	80	33.53	139	27.20	143
55 . . .	46.52	138	24.58	134	50.41	136	72.46	160	28.92	128	30.70	160	22.32	168
56 . . .	37.35	107	27.24	154	59.18	120	67.33	155	34.90	159	30.96	188	36.63	175
57 . . .	33.40	117	16.71	110	20.58	80	27.13	110	13.39	78	20.68	146	28.66	129
58 . . .	32.08	107	17.57	121	46.61	115	59.19	144	23.51	106	26.98	155	36.55	166
59 . . .	24.23	114	11.32	88	45.84	146	59.67	164	35.07	106	25.84	131	19.28	136
60 . . .	28.21	112	23.07	129	27.51	103	51.01	152	31.98	128	33.50	162	29.35	140
61 . . .	32.27	133	14.91	122	42.36	134	57.08	161	30.42	109	22.05	129	18.03	156
62 . . .	28.75	123	17.96	125	41.39	131	44.90	137	25.71	122	23.06	140	25.40	161
63 . . .	39.14	140	24.43	118	49.09	134	80.11	169	24.32	126	29.04	149	15.51	129
64 . . .	38.40	127	21.89	135	48.18	112	43.30	99	25.29	106	27.80	166	28.06	169
65 . . .	40.98	128	13.34	111	41.02	113	36.01	118	15.72	87	23.24	122	20.98	158
66 . . .	30.45	116	19.49	123	43.80	111	48.40	130	27.22	117	26.81	156	27.52	145
67 . . .	41.26	104	10.11	89	70.80	137	52.78	141	13.84	72	13.06	106	19.23	130
68 . . .	36.63	136	25.72	141	33.50	93	24.56	113	20.26	103	20.96	141	18.64	152
erage . . .	34.90	121	20.77	121	44.79	126	47.54	149	24.52	108	25.81	143	24.73	165
. of years . .	93	93	129	129	117	109	110	110	30	30	113	113	86	86
ndard 30 years' normal(c) . .	35.02	119	20.60	126	43.00	115	47.48	141	(*d*)25.76	(*d*)106	27.21	155	26.27	163

(*a*) Fairbairn Aerodrome; records in issues of the Year Book prior to No. 36 were for the station at Acton which closed down in 1939, ile from Year Book No. 36 to Year Book No. 53 records were for the Commonwealth Forestry Bureau station. (*b*) Records taken m present site commenced 1883. (*c*) 1931–1960. (*d*) Commonwealth Forestry Bureau.

Prolonged dry spells are fairly common in much of Australia, particularly in inland areas. A detailed discussion of the history of droughts and the frequency in particular areas may be found in Foley, J. C. *Droughts in Australia*, Bureau of Meteorology Bulletin No. 43 (1957). A shorter account of droughts in Australia will be found in a special article in Year Book No. 45, pages 51–6. A more recent account is included with Chapter 22—Water Conservation and Irrigation in Year Book No. 54 of 1968.

Rainfall and vegetation. In general, the three main climatic zones of the continent exert a particular controlling influence on the general vegetation. These are the northern third of the continent where rainfall is almost always restricted to the warmer months of the year, the southern third where rainfall is predominantly a winter and spring event, and a transitional zone which experiences rainfall from both sources, although in greatly reduced quantity over the interior, which is subject to frequent drought.

The length of the growing season, or conversely the extent of dry periods during the year, decides the type of vegetation which establishes in a region. The climatic influence on vegetative response is primarily through soil moisture and temperature. Thus in colder south-eastern areas the growing season is mainly temperature dependent, but elsewhere the availability of soil moisture is the prime factor. All rainfall is not equally effective in increasing the soil moisture, its availability from the soil storage to plants depending on the extent of surface run-off, seepage beyond the root zone, and loss by surface evaporation. Furthermore, the effectivenes of available soil moisture depends on the evaporative demand of the local climate; for example, an inch of stored mositure may maintain vigorous plant growth for twice as long in Tasmania as in the warmer, drier atmosphere of inland New South Wales. Thus it is not a sound practice to assess the agricultural potential of different areas simply by reference to average rainfall.

Generally speaking, the length of the growing season exceeds nine months over the far south-west of Western Australia and in all eastern coastal districts from Cape York Peninsula to western Victoria, and within this region humid and semi-humid plant formations thrive. Soil types, of course, also play a part in the distribution of vegetation, but they too are, to a considerable extent, the result of climate and weather.

The climate of Arnhem Land (Northern Territory) is such that there is a considerable surplus of moisture for about five months of the warm season, followed regularly by a virtual drought which frequently reaches severe intensity, and this special combination of meteorological conditions results in annual and perennial vegetation adapted to this cycle.

Over the interior the position is more complex because of the lower levels of the rainfall, its greater variability, and the high evaporative power of the drier, warmer atmosphere. In this vast section of the continent the climatic demands are so severe that the vegetative formations of the moister zones (i.e. the mesophytes, requiring about five months or longer growing season) are unable to exist. Thus a plant species adapted to these very dry and variable conditions (xerophytes), e.g. spinifex, salt bush, blue bush, and stunted eucalypts, capable of maintaining a cattle population, predominates over the arid interior.

The arid and semi-arid lands of Western Australia and inland New South Wales which border the desert carry the majority of the sheep in these States. In New South Wales the most important vegetative formations in these areas are savannah (treeless plains), savannah woodland, mulga scrub, and mallee scrub. In Western Australia sclerophyllous grass steppe and mulga scrub border the deserts and are succeeded to the south by zones of mallee scrub and mallee heath.

Rainfall intensity. The study of extremely high rainfall intensities is important in the investigation of the flow characteristics of river systems, and flood prevention measures, the design of irrigation works, and hydro-electric schemes. The highest rainfalls recorded in a period of twenty-four hours up to 1968 for each State and Territory were: Western Australia, Whim Creek, 29.41 inches, 3 April 1898; Northern Territory, Roper Valley, 21.44 inches, 15 April 1963; South Australia, Ardrossan, 8.10 inches, 18 February 1946; Queensland, Crohamhurst, 35.71 inches, 3 February 1893; New South Wales, Dorrigo, 25.04 inches, 24 June 1950; Australian Capital Territory, Jervis Bay, 7.15 inches, 29 April 1963; Victoria, Balook, 10.81 inches, 18 February 1951; and Tasmania, Mathinna, 13.25 inches, 5 April 1929. Most of the very high intensities have occurred in the coastal strip of Queensland, where the combination of a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls. For other very heavy falls at various localities reference may be made to Year Books No. 14, pages 60–4, No. 22, pages 46–8, No. 29, pages 43, 44 and 51, and No. 53, pages 32–4.

Snow and hail. For varying periods from late autumn to early spring snow usually covers the ground to a great extent on the Australian Alps above a level of about 4,500 to 5,000 feet, where in both New South Wales and Victoria ski-ing resorts operate throughout the season.

In Tasmania also the highlands are frequently covered above the 3,500 feet level for extended periods of the winter. There are, however, some years when snowfalls are much lighter than normal and even fail completely. Light snow has been known to fall occasionally as far north as the New England plateau in New South Wales (latitude 31° S.), and in exceptional seasons much of the dividing range from Victoria to Toowoomba (Queensland) has been covered above a level of about 4,000 feet. In ravines around Mount Kosciusko small areas of snow may persist throughout the summer after a heavy winter fall. This winter snowfall of south-eastern Australia is important in aiding the reliable flow of many streams which are utilised in the hydro-electric schemes of the Snowy Mountains, northern Victoria, and Tasmania. Snowfall at low terrain elevations occurs from time to time, particularly in Tasmania and Victoria, but falls are usually light and rarely lie more than a few days.

Hail is most frequent in winter and spring along the south-eastern coastal region of the continent and in Tasmania, where it is usually of a relatively small size, Summer storms, however, which are quite frequent, particularly in the highland plateau regions of eastern Australia, often produce stones of large size and of destructive intensity. Very large stones capable of piercing light gauge galvanised iron are reported from time to time, and damage to fruit crops in south-eastern Australia from large hail stones is quite frequent.

Floods. In general, flooding in Australia is most pronounced on the shorter streams flowing from the Great Dividing Range into the Pacific Ocean along the seaboard of Queensland and New South Wales. These floods are particularly destructive on the more densely populated coast of New South Wales. The chief rivers in this area are the Tweed, Richmond, Clarence, McLeay, Nepean, Hawkesbury, Hunter, and Shoalhaven, all of which experience quite frequent and considerable flooding. These floods occur chiefly in summer but may occur at any time of the year.

The great Fitzroy and Burdekin river systems in Queensland are also subject to floods during the summer wet season, while much of the heavy monsoon rain in northern Queensland flows southward throught the normally dry channels of the network of rivers draining into Lake Eyre. This water may cause extensive floods over a vast area, but it is soon lost by seepage and evaporation and rarely reaches the lake in any quantity. The Condamine and other tributaries of the Darling also carry considerable volumes of water south through western New South Wales to the Murray, and flooding along their courses occurs from time to time.

Flooding also occurs from time to time, usually in autumn, winter, and spring, in the Murray-Murrumbidgee system of New South Wales and Victoria and on the smaller coastal streams of southern Victoria. In Tasmania, flooding of the north coast streams, particularly the South Esk system, is common in the same seasons. In South Australia some flooding has occurred in the lower reaches of the Murray owing to rainfall as far away as Queensland and south-eastern New South Wales. In the north of Western Australia and the Northern Territory, flooding of the coastal streams occurs frequently in summer but is not of such economic importance as the flooding of the eastern coastal streams of the continent, where many localities are more vulnerable to damage.

Temperature

Conditions vary greatly for a particular individual even in a fixed location, so that it is difficult to describe general comfort variability uniquely throughout a region as varied climatically as Australia. A number of indexes which attempt to incorporate some of the factors concerned* have been used experimentally from time to time, and further research continues on this very difficult problem. Generally speaking, there is an increase in discomfort northwards within the tropical regions of Australia in summer, owing to the heat and high absolute humidity which reached a maximum in the extreme north of the continent. Such conditions are, however, ameliorated to a large extent in highland areas such as the Atherton Tableland in Queensland. No part of Australia is uncomfortably hot in winter, and only in a small area of the Australian Alps and highland Tasmania does bodily strain due to cold exist in winter. The history of the settlement of the northern regions of Queensland and the Northern Territory indicates that with accelerating development of studies and experience in the arrangement of living and working accommodation, clothing, and general way of life, the effects of extremes of climate can be minimised.

For some further discussion of the problems of temperature and comfort conditions reference may be made to Ashton, H. T., *Meteorological Data for Air Conditioning in Australia*, Bureau of Meteorology Bulletin No. 47 (1964).

Average seasonal temperature distribution. Plates 5 to 8, pages 37–38, show the normal daily maximum and minimum temperatures for January and July, which may be taken as indicative respectively of the summer and winter seasons in Australia. Further detailed temperature data are presented on pages 48–57 for the capital cities and more important country towns of the Commonwealth.

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* *See* **Year Book No. 53, page 35.**

On the basis of average annual mean temperatures, and latitude for latitude, Australia is somewhat cooler than the other land masses of the southern hemisphere and considerably cooler than the same latitudes in the large continental areas of the northern hemisphere. This is due to the insular nature of Australia and the stronger general circulation of the atmosphere in the southern hemisphere resulting in the transport of higher latitude (cooler) air into the subtropical regions.

July is the month with the lowest mean temperature in all parts of the continent, while the month with the highest mean temperature varies from February in Tasmania and southern Victoria to December in the northern part of the continent and November in Darwin. The lateness of the month of highest average temperature in the extreme south of the continent is due in part to the effect of the Southern Ocean, where the sea surface temperature reaches its maximum in February. The cooler period of the late summer in the north is due largely to increased cloudiness associated with the inflow of north-west winds with the onset of the monsoon season.

In January average maximum temperatures exceed 95° F. over a vast area of the interior of the continent, and over large areas exceed 100° F. The hottest part of Australia is situated in the north of Western Australia around the Marble Bar and Nullagine area, where the daily maximum screen temperature during the summer frequently exceeds 100° F. for weeks at a time.

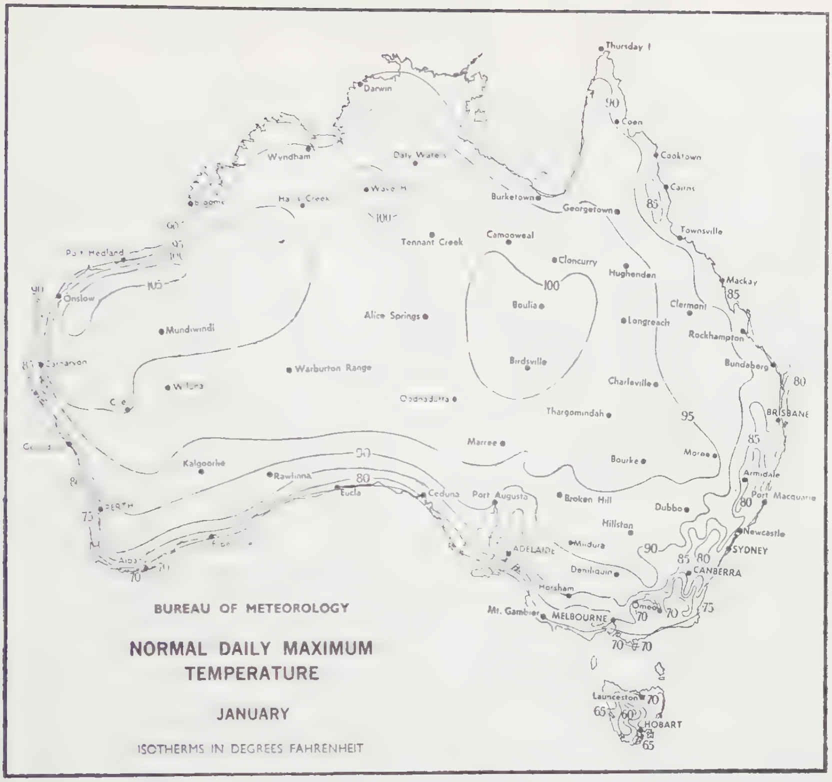
The marked change of maximum temperature in summer with distance from the sea, in areas close to the coasts, particularly along the Great Australian Bight and the Indian Ocean coast of Western Australia, is due to the penetration inland of the vigorous sea breezes which are initiated by the considerable temperature contrast between land and sea surface temperatures. The 75° F. isotherm of January mean maximum temperature skirts the southern coast of the continent from south-western Western Australia to Gippsland.

In January the mean minimum temperatures in the tropics, except for some highland regions, exceed 72° F., with a gradual decrease southward to values of 55° F. in Victoria and 50° F. in Tasmania. Highland regions in the south have mean values of 45° F. and lower. In July a more regular latitudinal distribution of mean maximum temperature is evident, only the extreme north of the continent having mean maxima higher than 80° F. Values lower than 60° F. are general over the south-eastern part of the continent, with mean maxima falling below 40° F. in small alpine areas. Average night minimum temperatures in July fall below 45° F. in areas south of the tropics and away from the coast. Alpine regions again record the lowest temperatures with some areas experiencing means lower than 25° F.

Extreme variation and daily range. Only at a few inland places in Australia does the absolute range of temperature (i.e. the range from the highest maximum to the lowest minimum) exceed 100° F. Generally it is in the range 70° F. to 90° F. in the inland areas and somewhat less on the coasts. The highest temperature recorded in Australia was 127.5° F. at Cloncurry (Queensland) on 16 January 1889 and the lowest −8° F. at Charlotte Pass in the southern Alps on 14 July 1945 and again on 22 August 1947. The world record maximum temperature is 136° F. at Azizia (Tripoli) on 13 August 1922 and the world record minimum temperature −126.9° F. at Vostok on the Antarctic plateau on 24 August 1960.

High temperature. Heat waves with a number of successive days higher than 100° F. are relatively common in many parts of Australia. With the exception of the north-western coast of Western Australia, however, most coastal areas do not usually experience more than a few days in succession of such conditions. The frequency of such conditions increases inland, and periods of up to twenty days have been recorded over most of the settled areas. This figure increases in western Queensland and north-western Western Australia to more than sixty days in places. The central part of the Northern Territory and the Marble Bar-Nullagine area of Western Australia have recorded the most prolonged heat waves for the Australian region. The longest consecutive period of daily maxima greater than 100° F. was 160 consecutive days recorded in Marble Bar during the summer of 1923–24.

Frosts. Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.), and a ground frost is regarded as having occurred when the grass thermometer has fallen below 30.4° F. However, as terrestrial minima are not recorded at all stations, it is usual for statistical purposes to regard the registration of a screen thermometer of 36° F. as indicating a 'light' frost. A map showing frequency of days with screen minima higher than 36° F. (i.e. the frost free period) is reproduced in plate 9, page 41. A 'heavy' frost is taken as a screen reading of less than 32° F. A 'black' frost occurs with a combination of low temperature and low humidity, and, although frost crystals are not observed on the ground, damage takes place to the plant cells by the freezing and expansion of the moisture they contain.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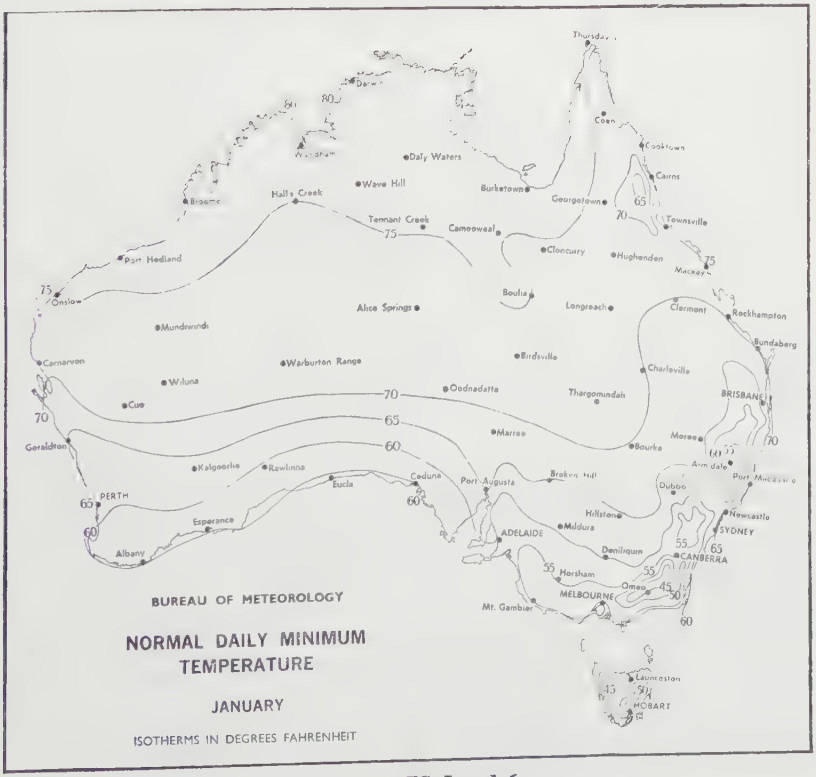
BUREAU OF METEOROLOGY

NORMAL DAILY MAXIMUM TEMPERATURE

JANUARY

ISOTHERMS IN DEGREES FAHRENHEIT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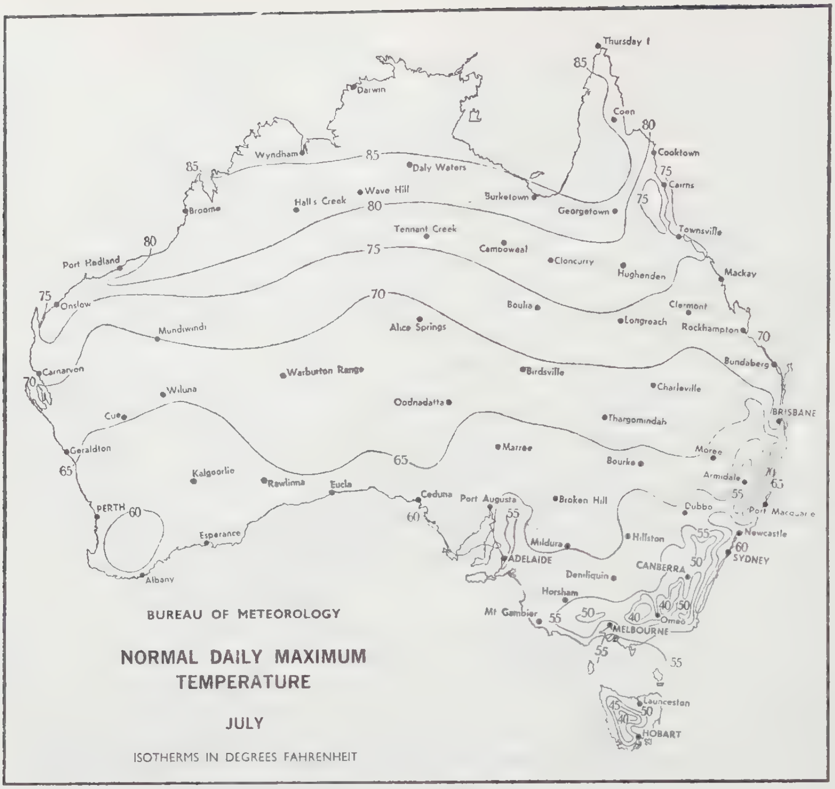
BUREAU OF METEOROLOGY

NORMAL DAILY MINIMUM TEMPERATURE

JANUARY

ISOTHERMS IN DEGREES FAHRENHEIT

PLATES 5 and 6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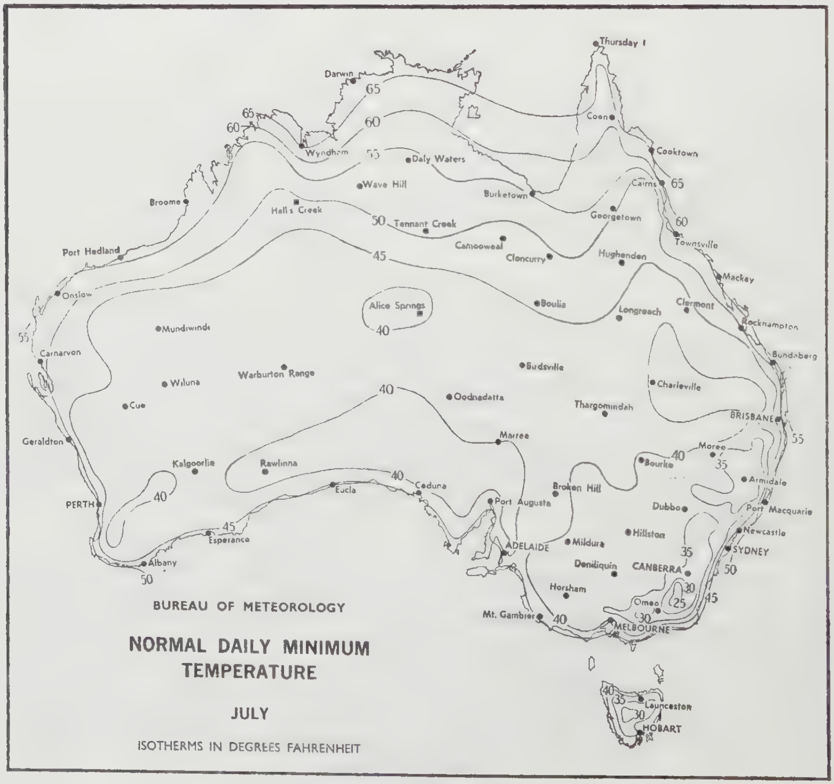
BUREAU OF METEOROLOGY

NORMAL DAILY MAXIMUM TEMPERATURE

JULY

ISOTHERMS IN DEGREES FAHRENHEIT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BUREAU OF METEOROLOGY

NORMAL DAILY MINIMUM TEMPERATURE

JULY

ISOTHERMS IN DEGREES FAHRENHEIT

PLATES 7 and 8

The frequency of frost depends largely on altitude, latitude, and proximity to the sea, and locally, to a very large extent, on even minor variations in contour of the land. The parts of Australia which are most subject to frost are the eastern highlands from north-eastern Victoria to the western Darling Downs in southern Queensland. Most stations in this region experience more than ten nights a month with readings of 32° F. or under for three to five months of the year. On Tasmania's Central Plateau similar conditions occur for three to six months of the year. Heavy frosts are comparatively infrequent in Western Australia, except in parts of the south and south-west. In South Australia frosts are most frequent in the agricultural areas of the south-east.

Frosts may occur within a few miles of the coast over the whole continent except the Northern Territory and most of north Queensland. Regions in which frosts may occur at any time of the year comprise most of Tasmania, large areas of the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part in the extreme south-west of Western Australia. Over most of the interior of the continent, and on the highlands of Queensland as far north as the Atherton Plateau, frosts commence in April and end in September, but they are infrequent in these months. Minimum temperatures below 32° F. are experienced in most of the sub-tropical interior in June and July.

For further details of frost conditions in Australia reference should be made to Foley, J. C., *Frost in the Australian Region*, Bureau of Meteorology Bulletin No. 32 (1945).

Humidity and saturation deficit

The annual variation of vapour pressure* for regions outside the tropics closely follows that of temperature. However, the mean relative humidity† in the temperate regions is generally highest in winter and lowest during the summer. In northern Australia the highest relative humidity occurs during the rainy summer season. The relative humidity variation during the day closely follows the diurnal variation of temperature, being highest with low temperatures and lowest with high temperatures. The relative humidity at 9 a.m. for Australian conditions may be considered as a close approximation to the mean for the whole day. In the tables for the capital cities, pages 48–55, the mean monthly vapour pressure and relative humidity for 9 a.m., together with the monthly extremes, are listed. The order of the stations in descending values of mean annual vapour pressure at 9 a.m. is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, and Hobart, while the annual mean of the 9 a.m. relative humidities diminishes in the order Darwin, Sydney, Canberra, Melbourne, Brisbane, Hobart, Perth, and Adelaide.

In January the mean saturation deficit‡ at the mean temperature for the month has a maximum value of over 0.90 inches in the central parts of Western Australia and in south-eastern Queensland. Gradual decreases occur towards the coast, where values close to the north, east, and south coastlines are around 0.20 inches. On the western coast values are somewhat higher, and a strong gradient exists in the saturation deficit in the narrow region bordering the Indian Ocean. In July the variation is less, with maxima of 0.40 inches in the dry north of the Northern Territory and Western Australia, slowly decreasing generally to the south, with values over most of the south-east and extreme south-west of the continent being less than 0.10 inches. Extremely low values (less than 0.025 inches) exist in July over the highlands of south-eastern Australia and Tasmania.

Evaporation

In Australia the study of evaporation is of great importance, since in its drier regions water conservation must be practised by the use of tanks and dams. The magnitude of the economic loss by evaporation may be appreciated from plate 10, page 41, which shows that the yearly amount varies from 20 inches over the highland areas of central Tasmania to more than 130 inches in the northern and north-western part of South Australia.

Over an area of some 70 per cent of the continent, comprising most inland districts and extending to the coast in the north-west of Western Australia and to the head of the Great Australian Bight, the rainfall does not exceed the evaporation loss in any month of the year. The central and north-western portion of the continent experience evaporation far in excess of their rainfall. Vegetation over these areas is characterised by acacia, scrub steppe, and arid scrub, while many areas are merely sand hills and stony desert. Over many of the drier areas, however, particularly in the inland areas of south-eastern Australia, the loss of rainfall by evaporation is made good to some extent by the development of irrigation schemes. Some of these schemes, such as those at the Murrumbidgee Irrigation Area in New South Wales and at Mildura in Victoria and Renmark in South Australia, have been very successful. The Snowy Mountains Hydro-electric Scheme has also resulted in the large scale supply of water from the south-eastern highlands of Australia for use in the drier areas to the west of the ranges in New South Wales and Victoria. The future development of such schemes as these holds promise for the reclamation of many marginal areas in Australia, which because of low rainfall and high evaporation are at present of little economic value.

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* *Vapour pressure*—the pressure exerted by the water vapour of the atmosphere. † *Relative humidity*—the ratio of the existing vapour pressure to the saturated vapour pressure at the existing temperature, expressed as a percentage. ‡ *Saturation deficit*—the difference between the saturation vapour pressure and the actual vapour pressure. *See* Year Book No. 53, page 37 for further information.

Since the loss by evaporation depends largely on the net radiation absorbed and consequently on the extent of the exposed area, tanks and dams so designed that the surface area shall be a minimum are advantageous. Further, the more protected they are from the direct rays of the sun and from winds by means of suitable tree planting the less will be the evaporation loss. The Mansfield process for the treatment of tanks and dams by a mono-molecular chemical film which materially reduces evaporation is a recent development which is already giving beneficial results, particularly on large water storage areas. Such improvements are of considerable importance to the pastoralists of the drier regions of Australia and to water supply authorities.

Further information on evaporation may be found in Hounam, C. E., *Evaporation in Australia*, Bureau of Meteorology Bulletin No. 44 (1961).

Sunshine and cloud

The proportion of the sky covered by cloud is of considerable meteorological and climatological importance. A cloud cover inhibits both incoming and outgoing radiation and thus profoundly affects the temperature distribution and other factors at the earth's surface. Cloud amount is measured in eighths of the sky covered.

In Australia the seasonal changes in cloudiness correspond closely to that of rainfall. In the southern or more temperate parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. A particularly strong annual periodicity exists in the monsoonal regions of northern Australia, where it is heavily clouded during the summer wet season and practically cloudless during the winter 'dry'. Cloudiness is higher near coasts and on the windward slopes of the mountains of eastern Australia and is least over the dry interior parts of the continent.

A close relationship exists between cloud amount and number of sunshine hours, and it is possible to estimate from cloud data the equivalent number of sunshine hours over a given period. These data can be incorporated with records of direct measurement of sunshine hours, and approximate distribution maps produced for Australia. Maps of the mean sunshine distribution for January and July are reproduced in plates 11 and 12, page 42 and indicate the main features of the variation over Australia in these months.

Except for Tasmania and a narrow fringe bordering the southern, eastern, and northern coasts, the greater part of the continent receives more than 3,000 hours of sunshine each year, and in Central Australia and the mid-western coast of Western Australia totals in excess of 3,500 hours occur. The extreme south coast receives in the main 2,000 to 2,500 hours annually, while the east coast regions of New South Wales and Queensland receive 2,500 to 3,000 hours. A minimum of less than 1,750 hours occurs on the west coast and highlands of Tasmania.

Mean amounts of cloud for each month at the capital cities are included in the tables on pages 48–55, as are the mean daily hours of sunshine. The latter figure is a good single measure of the relative climatic characteristics of the individual cities for different months of the year.

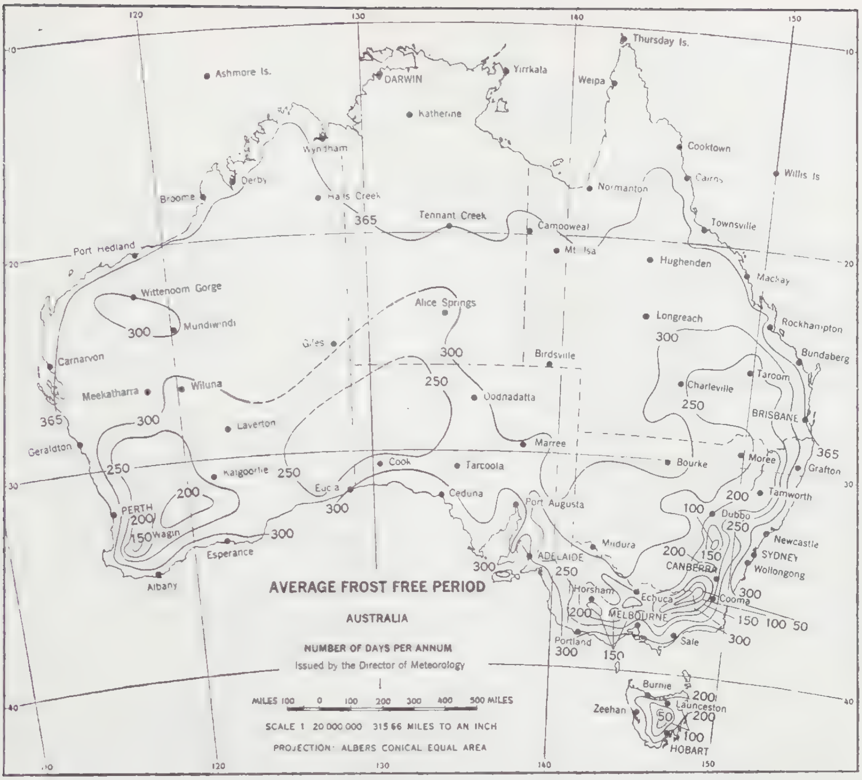
Wind

Australia lies in those latitudes of the southern hemisphere where it is influenced largely by two wind systems:

(*a*) the south-east trade winds blowing on the equatorial side of the mid-latitude anticyclones; and

(*b*) the westerlies south of the mid-latitude anticyclones in which successive low pressure systems move eastward over the Southern Ocean.

The only pronounced seasonal variations of atmospheric pressure in the middle and high latitudes of the southern hemisphere are related to the latitudinal shift in the axes of the sub-tropical high pressure systems and to the change in the tracks of the migratory anticyclones. The latter systems move generally from west to east in the Australian region between the semi-permanent oceanic anticyclones of the Indian and Pacific Oceans. The mean path of these systems lies over southern Australia during the summer but moves northwards during the winter with the thermal equator. The movement is only of a few degrees of latitude but it is of very great importance to the climate of the Australian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Wittenoom Gorge
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Rockhampton
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Bundaberg
Wiluna
Meekatharra
250
Oodnadatta
Charleville
Taroom
250
Laverton
BRISBANE
365
Geraldton
Marree
Bourke
Moree
365
Grafton
Kalgoorlie
250
Cook
Tarcoola
Eucla
Ceduna
200
Tamworth
Port Augusta
Dubbo
PERTH
Wagin
150
Esperance
Mildura
Newcastle
SYDNEY
Wollongong
CANBERRA
Albany
ADELAIDE
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale
150
100
50
Burnie
Zeehan
Launceston
HOBART
MILES 100 0 100 200 300 400 500 MILES
120
130
140
150
10
20
30
40

AVERAGE FROST FREE PERIOD

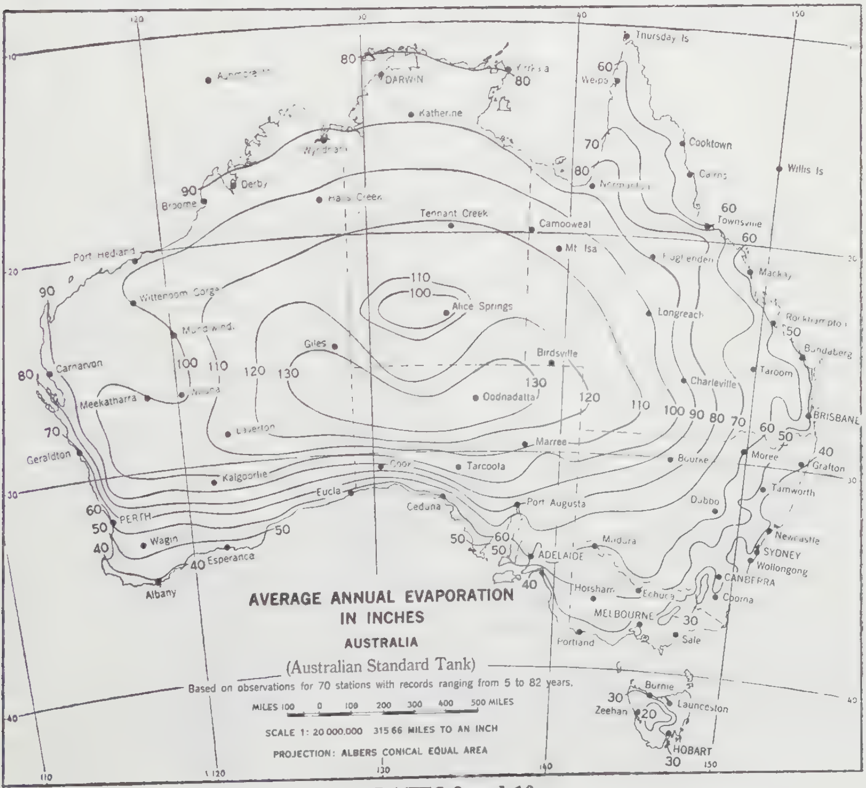
AUSTRALIA

NUMBER OF DAYS PER ANNUM

Issued by the Director of Meteorology

SCALE 1 20 000 000 315·66 MILES TO AN INCH

PROJECTION: ALBERS CONICAL EQUAL AREA


Thursday Is
80
DARWIN
Yirrkala
80
60
Weipa
Katherine
Wyndham
70
Cooktown
Cairns
80
Normanton
Willis Is
90
Derby
Broome
Halls Creek
Tennant Creek
Camooweal
60
Townsville
60
Port Hedland
Mt Isa
Hughenden
90
110
100
Alice Springs
Wittenoom Gorge
Mackay
Longreach
Rockhampton
Mundiwindi
50
Giles
Bundaberg
Birdsville
80
Carnarvon
100
110
120
130
130
Charleville
Taroom
Meekatharra
Wiluna
Oodnadatta
120
110
100
90
80
70
BRISBANE
70
Laverton
60
50
Marree
Geraldton
Bourke
Moree
40
Grafton
Cook
Tarcoola
Kalgoorlie
Eucla
Tamworth
Ceduna
Port Augusta
Dubbo
60
PERTH
50
50
Wagin
60
50
40
Esperance
Mildura
Newcastle
SYDNEY
Wollongong
Albany
ADELAIDE
40
CANBERRA
Horsham
Echuca
Cooma
MELBOURNE
30
Sale
Portland
Burnie
30
Launceston
Zeehan
20
HOBART
30
MILES 100 0 100 200 300 400 500 MILES
110
120
130
140
150

AVERAGE ANNUAL EVAPORATION IN INCHES

AUSTRALIA

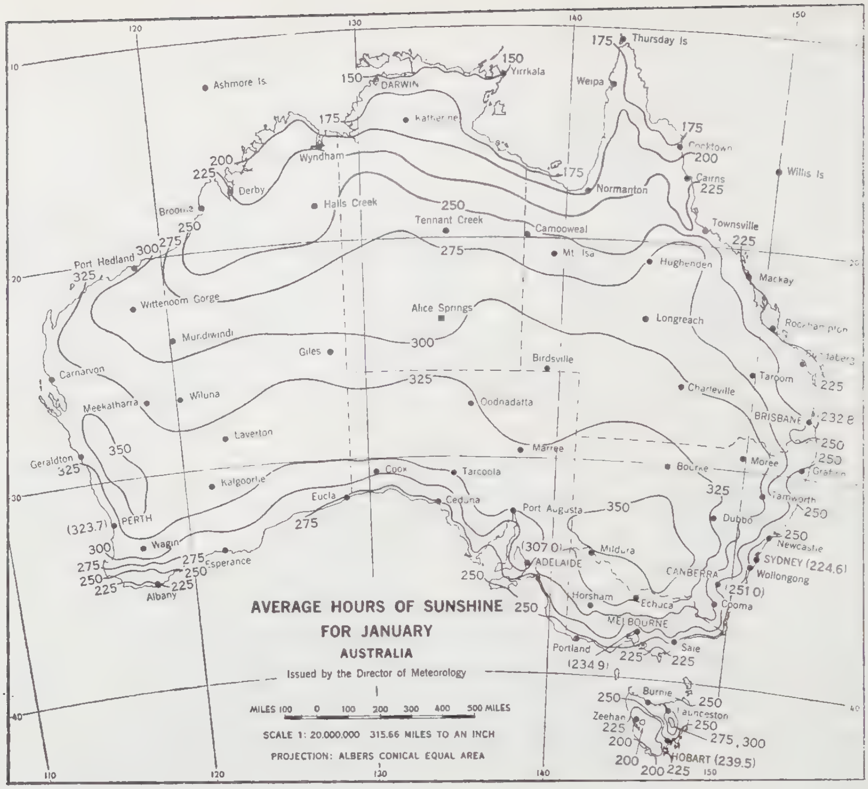
(Australian Standard Tank)

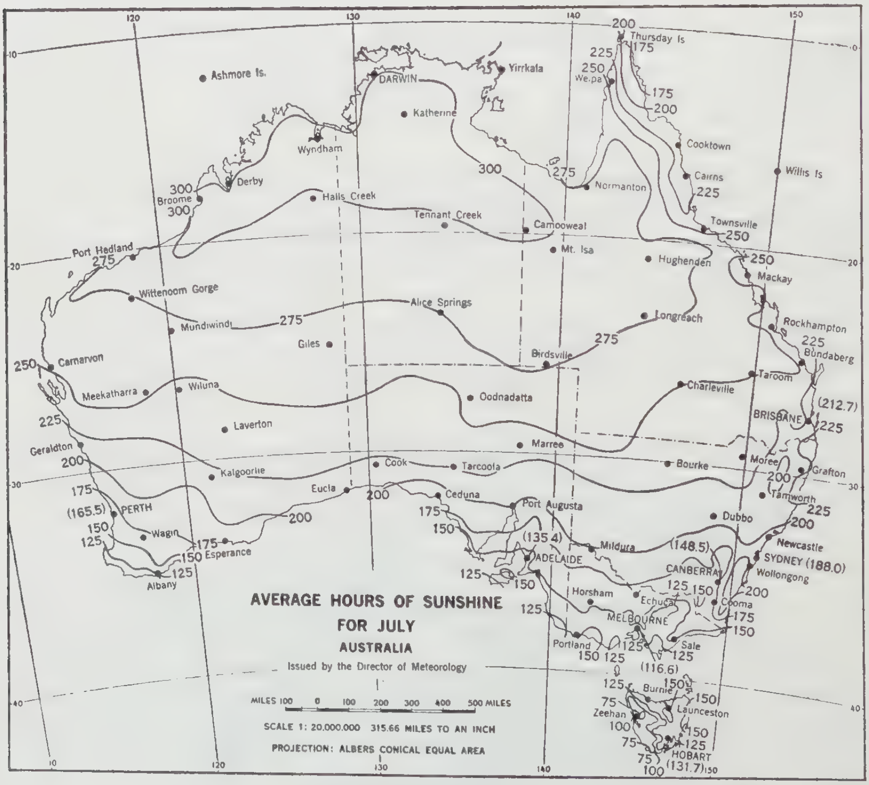
Based on observations for 70 stations with records ranging from 5 to 82 years.

SCALE 1: 20 000 000 315·66 MILES TO AN INCH

PROJECTION: ALBERS CONICAL EQUAL AREA

PLATES 9 and 10


AVERAGE HOURS OF SUNSHINE
FOR JANUARY
AUSTRALIA
Issued by the Director of Meteorology
MILES 100 0 100 200 300 400 500 MILES
SCALE 1: 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Yirrkala
DARWIN
Ashmore Is.
Weipa
Katherine
Cooktown
Wyndham
Willis Is
Derby
Cairns
Normanton
Halls Creek
Broome
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE (232.8)
Laverton
Marree
Geraldton
Moree
Bourke
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Tamworth
Port Augusta
Dubbo
PERTH (323.7)
Newcastle
Wagin
Mildura
SYDNEY (224.6)
Esperance
ADELAIDE (307.0)
Wollongong
Albany
CANBERRA (251.0)
Horsham
Echuca
Cooma
MELBOURNE
Portland (234.9)
Sale
Burnie
Launceston
Zeehan
HOBART (239.5)
150
175
200
225
250
275
300
325
350


AVERAGE HOURS OF SUNSHINE
FOR JULY
AUSTRALIA
Issued by the Director of Meteorology
MILES 100 0 100 200 300 400 500 MILES
SCALE 1: 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
Thursday Is
Yirrkala
DARWIN
Ashmore Is.
Weipa
Katherine
Cooktown
Wyndham
Willis Is
Derby
Cairns
Normanton
Broome
Halls Creek
Tennant Creek
Camooweal
Townsville
Port Hedland
Mt. Isa
Hughenden
Mackay
Wittenoom Gorge
Alice Springs
Longreach
Rockhampton
Mundiwindi
Giles
Birdsville
Bundaberg
Carnarvon
Taroom
Charleville
Meekatharra
Wiluna
Oodnadatta
BRISBANE (212.7)
Laverton
Marree
Geraldton
Moree
Bourke
Grafton
Kalgoorlie
Cook
Tarcoola
Eucla
Ceduna
Tamworth
Port Augusta
PERTH (165.5)
Dubbo
Wagin
Mildura (148.5)
Newcastle
Esperance
ADELAIDE (135.4)
SYDNEY (188.0)
Albany
CANBERRA
Wollongong
Horsham
Echuca
Cooma
MELBOURNE
Portland
Sale (116.6)
Burnie
Launceston
Zeehan
HOBART (131.7)
75
100
125
150
175
200
225
250
275
300

PLATES 11 and 12

continent. During the summer months, when the anti-cyclones move on a more southerly track, the south-east trades affect the whole coast of eastern Australia north of around latitude 30° S., the westerlies retreating to higher latitudes, and conditions are more settled over southern Australia which then lies close to the axis of the anticyclones. In winter the anticyclones move further north, the trades affect only the northern parts of the continent, and southern Australia is exposed to the westerlies of the Southern Ocean.

In summer, with the retreat of the anticyclones to the south, the whole of northern and north-western Australia is exposed initially to light wind systems, and then during the period from December to April to the effects of the north-west monsoon. This process, which is associated with an inflow of north-west winds and intensive rains, is not as regular or persistent as the south-west monsoon of south-east Asia. However, it is a sufficiently regular feature of the climate of northern Australia to be designated as the north-west season, or, as it is best known in the area, 'the wet'. Its influence affects areas as far south as central Queensland, but southern Queensland and the area east of the Great Dividing Range are largely still under the influence of the south-east trades. Fringe or marginal areas on the southern limits of the monsoonal penetration over the continent have a shorter and more uncertain 'wet' season, which in some years fails to appear at all. With the northward advance of the anticyclones in autumn, the monsoon gives way again to the trades, and 'the dry' of northern and north-western Australia commences.

The general features of these wind patterns may be seen in the wind rose diagrams of plates 13 and 14, pages 44–45. It is important, however, to note the dynamic nature of the atmosphere, and that the continual growth, decay, and motion of the pressure systems result in a wide diversity of wind-flow types. Descriptions of wind conditions for particular geographical areas and seasons can thus be only of a very generalised kind. Further, local features can also be imposed on the overall wind pattern—channelling of winds due to topography (e.g. the high frequency of north-west winds in Hobart) and the marked summer sea breeze characteristics of most of the Australian coast, particularly near the Great Australian Bight as shown in the diagrams of 3 p.m. wind frequencies.

Storms and tropical cyclones

In general there are two types of weather systems in Australia which produce very strong winds and heavy rainfalls over large areas of the continent:

(*a*) the active depressions which move westwards over the Southern Ocean; and

(*b*) the tropical cyclones or hurricanes of north-eastern and north-western Australia.

During the winter the southern shores of the continent are subject to the deep depressions of the southern low pressure belt. They are felt most severely over the south-west of Western Australia, the south-east of South Australia, southern Victoria, and Tasmania, and may move inland in all these regions bringing strong winds and heavy rainfall. Further extensions of this type of system frequently develop close to the coast of New South Wales, often bringing severe weather to this region and to southern Queensland. These are generally known as 'east coast lows'.

The frontal systems (i.e. the narrow zones characterised by cloud and bad weather separating two air masses of different density) which are associated with these depressions vary widely in character. A common type in south-east Australia is a cold front located in a ∧ shaped trough. Such a system usually brings very strong north to north-west winds in advance of the front with a very abrupt backing of the wind to colder west to south-westerly winds after the frontal passage. Such frontal passages are, in their most severe form, associated with thunderstorms and line squalls, heavy rain, and a change to cold winds and showers. These violent changes with the passage of a cold front and strong southerly winds frequently affect the New South Wales coast as far north as Newcastle during the winter, and are popularly known as 'southerly busters'.

The most extensive rains of inland Australia occur when moist tropical air which has moved inland is lifted by convergence ahead of a slow moving colder air mass moving from the southern Ocean. The coast of Queensland, particularly the section from Cooktown to Mackay and the adjacent waters, is subject to visitations by tropical cyclones (the 'hurricanes' of the Caribbean and 'typhoons' of the China Sea). These destructive systems can affect this region from December to April, normally forming in the Coral Sea, moving south-west close to the coast and then passing away to the South-east into the Pacific. They may, however, cross the coast from time to time and bring torrential rain and violent winds (often more than 100 mph) to the coastal regions.

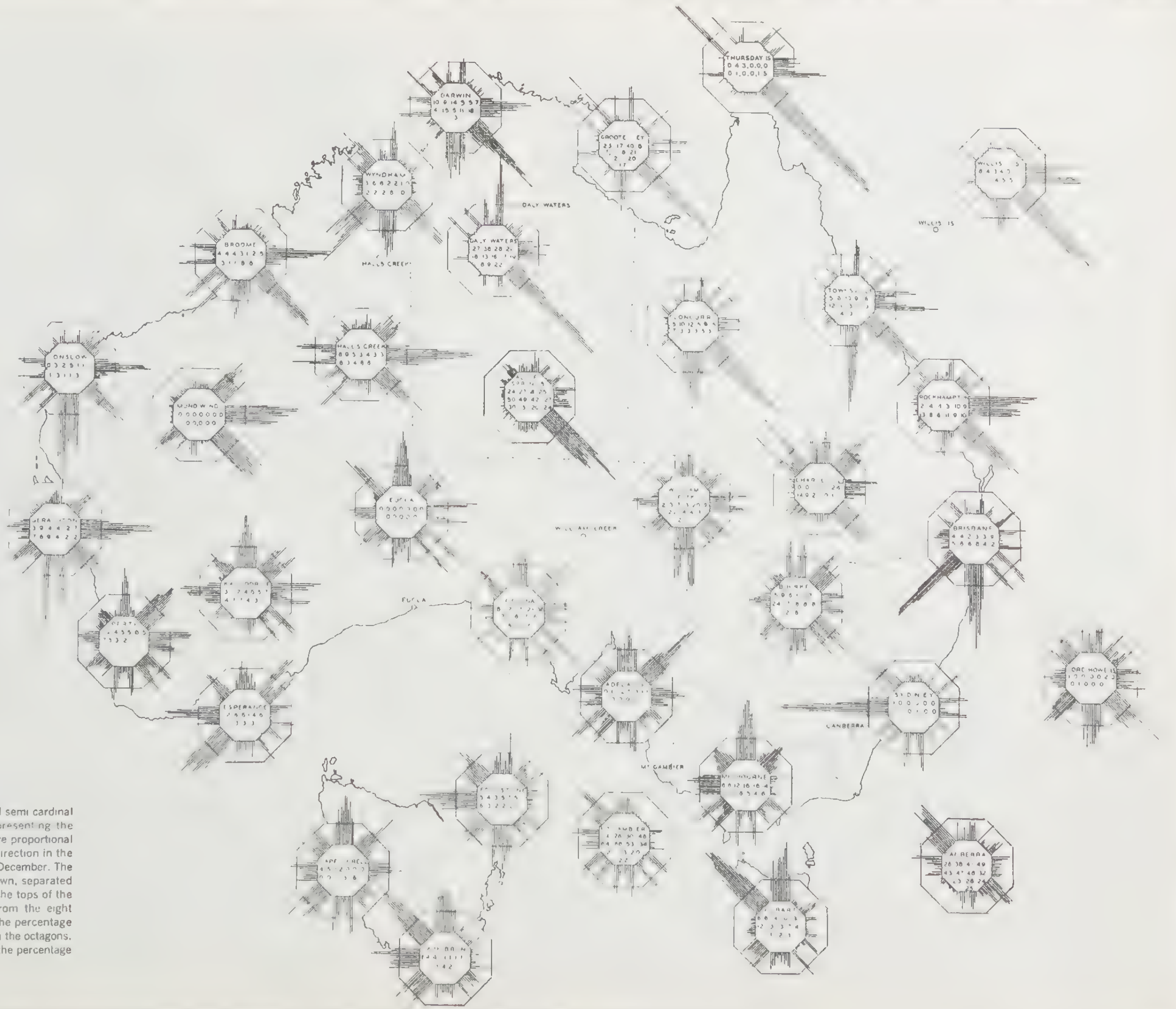
Similar systems affect the north-west coast of Western Australia where they bear the local name of 'willy willies', a name which is, however, often used generally in Australia for minor local whirlwinds or dust devils. The season in this region generally lasts from November to April, the storms originating in the Timor or Arafura Seas travelling usually south-west and approaching the coast most commonly between latitudes 20° S. and 22° S. Thence the systems may move southwards following the coast,

BUREAU OF METEOROLOGY

WIND ROSES

9 A.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS


THURSDAY IS
DARWIN
WYNDHAM
BROOME
DALY WATERS
HALLS CREEK
ONSLOW
WILLIS IS
ROCKHAMPTON
BRISBANE
EUCLA
WILLIAM CREEK
ESPERANCE
ADELAIDE
MT GAMBIER
SYDNEY
CANBERRA
LORD HOWE IS

10 5 0 10 20 30 40 50 60 70 80 90 100
SCALE OF FREQUENCIES PER CENT

EXPLANATION

The sides of the octagons face towards the cardinal and semi cardinal points. Projecting from each side are twelve columns representing the twelve months of the year, and the lengths of the columns are proportional to the percentage frequencies of the winds from the given direction in the successive months, working round clockwise from January to December. The scale is shown above, and the outer octagons have been drawn, separated from the inner octagons by a distance representing 12½%. The tops of the columns would all be on these outer octagons if winds from the eight directions were equally frequent and there were no calms. The percentage frequency of calms in the 12 months is shown by figures within the octagons. Small dashes within the inner octagons indicate months when the percentage of winds from that direction is practically zero.

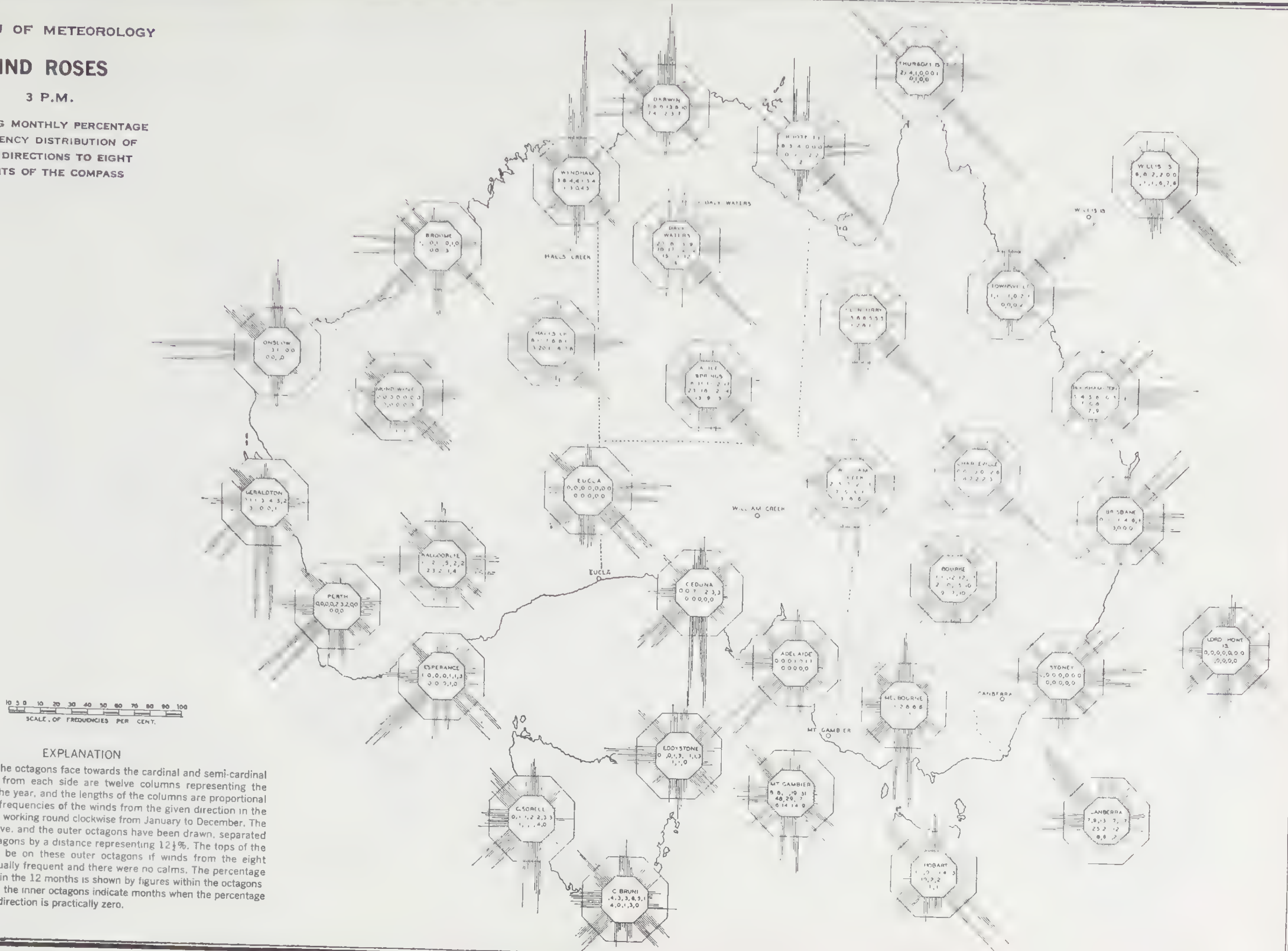
PLATE 13

BUREAU OF METEOROLOGY

WIND ROSES

3 P.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS



THURSDAY IS
DARWIN
WILLIS IS
WYNDHAM
DALY WATERS
BROOME
HALLS CREEK
ONSLOW
TOWNSVILLE
CLONCURRY
ALICE SPRINGS
ROCKHAMPTON
GERALDTON
EUCLA
WILLIAM CREEK
CHARLEVILLE
BRISBANE
KALGOORLIE
PERTH
BOURKE
CEDUNA
ESPERANCE
ADELAIDE
MELBOURNE
CANBERRA
SYDNEY
LORD HOWE IS
EDDYSTONE
MT GAMBIER
C. SORELL
C. BRUNY
HOBART
10 5 0 10 20 30 40 50 60 70 80 90 100
SCALE OF FREQUENCIES PER CENT.

EXPLANATION

The sides of the octagons face towards the cardinal and semi-cardinal points. Projecting from each side are twelve columns representing the twelve months of the year, and the lengths of the columns are proportional to the percentage frequencies of the winds from the given direction in the successive months, working round clockwise from January to December. The scale is shown above, and the outer octagons have been drawn, separated from the inner octagons by a distance representing 12½%. The tops of the columns would all be on these outer octagons if winds from the eight directions were equally frequent and there were no calms. The percentage frequency of calms in the 12 months is shown by figures within the octagons. Small dashes within the inner octagons indicate months when the percentage of winds from that direction is practically zero.

PLATE 14

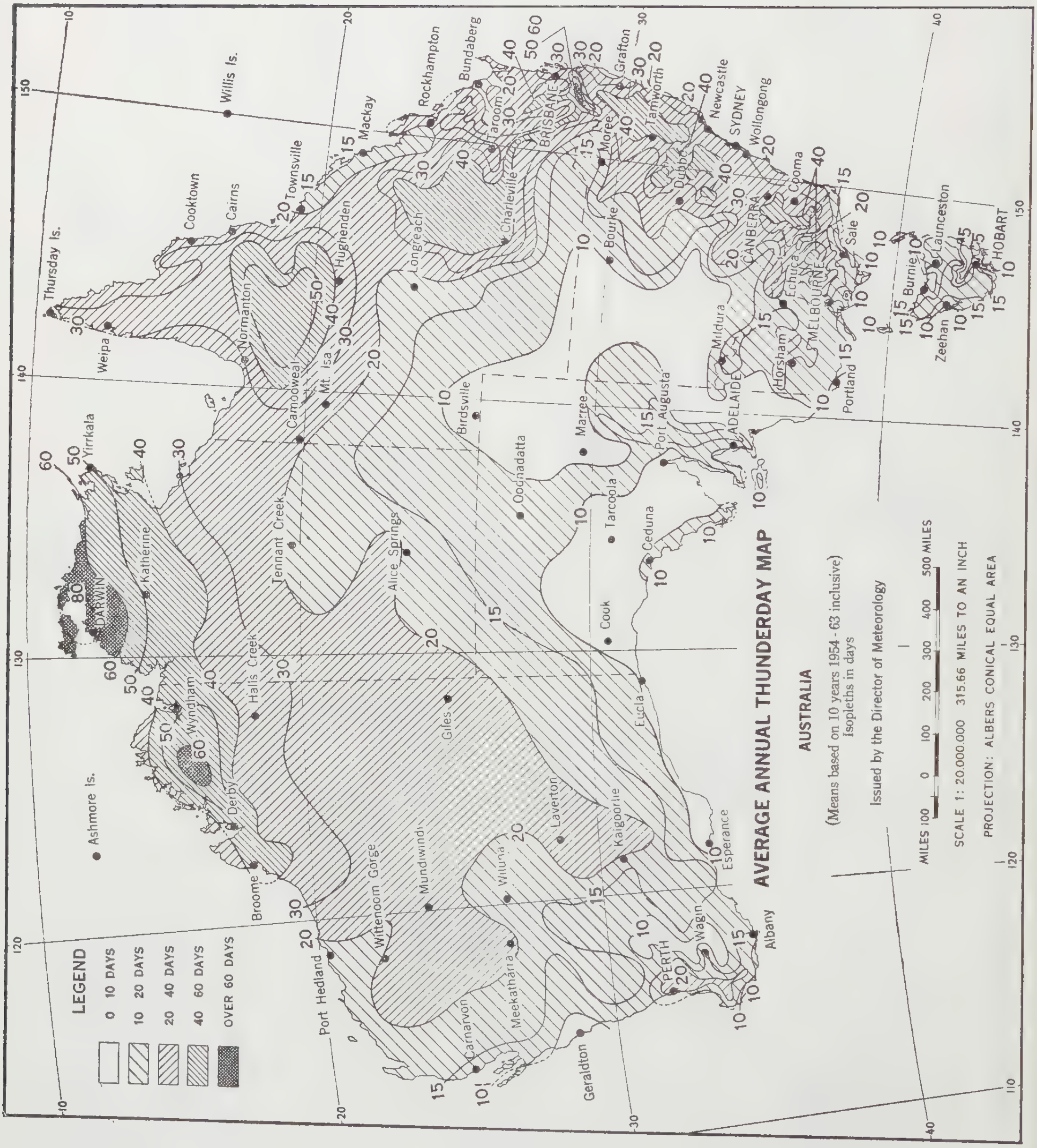

AVERAGE ANNUAL THUNDERDAY MAP
AUSTRALIA
(Means based on 10 years 1954 - 63 inclusive)
Isopleths in days
Issued by the Director of Meteorology
MILES 100 0 100 200 300 400 500 MILES
SCALE 1: 20,000,000 315.66 MILES TO AN INCH
PROJECTION: ALBERS CONICAL EQUAL AREA
LEGEND
0 10 DAYS
10 20 DAYS
20 40 DAYS
40 60 DAYS
OVER 60 DAYS
Thursday Is.
Willis Is.
Ashmore Is.
Weipa
Cooktown
Cairns
Townsville
Mackay
Rockhampton
Bundaberg
Taroom
BRISBANE
Grafton
Tamworth
Newcastle
SYDNEY
Wollongong
Moree
Dubbo
Cooma
CANBERRA
Sale
MELBOURNE
Echuca
Horsham
Portland
Mildura
ADELAIDE
Port Augusta
Marree
Birdsville
Bourke
Charleville
Longreach
Hughenden
Normanton
Mt. Isa
Camooweal
Tennant Creek
Alice Springs
Oodnadatta
Tarcoola
Ceduna
Cook
Eucla
Yirrkala
DARWIN
Katherine
Wyndham
Halls Creek
Derby
Broome
Port Hedland
Wittenoom Gorge
Mundiwindi
Giles
Wiluna
Laverton
Kalgoorlie
Esperance
Meekatharra
Carnarvon
Geraldton
PERTH
Wagin
Albany
Burnie
Launceston
Zeehan
HOBART

PLATE 15

or sometimes cross inland bringing high rainfalls to the otherwise dry interior of the continent. A further region which is affected somewhat less frequently by tropical cyclones is the coast of Arnhem Land in the Northern Territory and the waters and coasts of the Gulf of Carpentaria.

Tropical cyclones, in general, soon lose their intensity on crossing from sea to land, but, although the wind force rapidly abates, they are still capable of producing the heavy rainfall which leads to flooding of coastal rivers, damage to stock and property, and general disruption of transport.

Thunderstorms which bring local heavy rain and strong winds are common to most of Australia. They are also of particular importance because of the lightning damage which they cause to power transmission lines, and have been extensively studied for the purpose of siting electrical installations as far as possible in areas of low thunderstorm occurrence. Plate 15, page 46, shows the number of days annually on which thunder is heard, which is a better observational criterion than lightning observed. The region of maximum thunderstorm activity is the extreme north-west of the continent and the region south-east of the Gulf of Carpentaria. In the more settled areas maximum thunderstorm occurrence is in central western and south-eastern Queensland and the highland areas of New South Wales. The minimum number of storms occur over the interior of South Australia, western New South Wales, and eastern Tasmania.

Climatological tables

The averages and extremes for a number of elements which have been determined from long series of observations at the Australian capitals up to and including the year 1968 (data for Canberra up to 1969) are given in the following pages, together with more limited data for the larger country towns of the Commonwealth.

Barometric and vapour pressure data, which were expressed in inches of mercury in years before 1966, are now expressed in millibars (1 millibar = 0.02953 inches of mercury).

The data for Canberra show the number of days of thunder; the other tables show the number of days of lightning.

The following points apply, except where otherwise stated. Where records are available, prevailing winds have been determined over a standard period of thirty years from 1911 to 1940. Other averages and extremes, including evaporation, temperature, and rainfall records for which thirty years normals have been published for a number of years past, have, since 1965, been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

CLIMATOLOGICAL DATA: PERTH, WESTERN AUSTRALIA

(Lat. 31° 57′ S., Long. 115° 51′ E. Height above M.S.L. 210 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)	Wind (height of anemometer 71 ft) Average miles per hour	Highest mean speed in one day (mph)	Highest gust speed (mph)	Prevailing direction 9 a.m.	Prevailing direction 3 p.m.	Mean amt evaporation (in)	No. days lightning	Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
No. of years of observations	84	30(b)	70	55	30(b)	30(b)	70	72	30(b)	30(b)
January	1,012.6	10.9	26.3 *27/98*	50	E	SSW	10.36	2	2.3	14
February	1,013.0	10.7	21.5 6/08	54	ENE	SSW	8.75	1	2.5	13
March	1,015.2	10.1	21.5 6/13	70	E	SSW	7.62	2	2.8	12
April	1,017.9	8.5	31.5 25/00	63	ENE	SSW	4.65	1	3.4	9
May	1,017.9	8.4	27.3 29/32	74	NE	WSW	2.80	3	4.3	6
June	1,017.6	8.4	30.2 17/27	80	N	NW	1.87	2	4.7	5
July	1,018.8	8.8	33.5 20/26	85	NNE	W	1.80	2	4.5	5
August	1,018.7	9.4	31.9 15/03	97	N	WNW	2.45	1	4.5	6
September	1,018.4	9.4	28.5 11/05	68	ENE	SSW	3.54	1	3.9	8
October	1,016.9	10.0	26.7 6/16	65	SE	SW	5.44	1	3.8	8
November	1,015.5	10.7	25.7 *18/97*	63	E	SW	7.59	1	3.1	9
December	1,013.4	11.0	25.6 6/22	64	E	SSW	9.69	2	2.6	13
Year: Totals	..	..	.. ..	..	..	..	**66.62**	**19**	..	**108**
Year: Averages	**1,016.4**	9.7	.. ..	..	E	SSW	..	..	3.5	..
Year: Extremes	..	..	**33.5 20/7/26**	**97**	..	..	..	..	..	

(a) Scale 0–8. (b) Standard thirty years normal (1911–1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.) Mean max.	Mean min.	Mean	Extreme shade temperature (°Fahr.) Highest	Lowest	Extreme temperature (°Fahr.) Highest in sun	Lowest on grass	Mean daily hours sunshine
No. of years of observations	72	72	72	72	72	63(a)	70	71
January	85.1	63.6	74.3	110.7 29/56	48.6 20/25	177.3 22/14	39.5 20/25	10.4
February	85.4	63.8	74.6	112.2 8/33	47.7 1/02	173.7 4/34	39.8 1/13	9.9
March	81.9	61.5	71.7	106.4 14/22	45.8 8/03	167.0 19/18	36.7 (b)	8.8
April	76.1	57.3	66.7	99.7 9/10	39.3 20/14	157.0 8/16	30.8 26/60	7.2
May	69.1	52.6	60.9	90.4 2/07	34.3 11/14	146.0 4/25	25.0 31/64	5.8
June	64.4	49.8	57.1	81.7 2/14	34.9 22/55	135.5 9/14	25.9 27/46	4.8
July	62.9	47.9	55.4	76.4 21/21	34.2 7/16	133.2 13/15	25.1 30/20	5.2
August	64.1	48.2	56.1	82.0 21/40	35.4 31/08	145.1 29/21	26.6 18/66	6.1
September	66.7	50.1	58.4	90.9 30/18	36.7 6/56	153.6 29/16	27.2 (c)	7.1
October	69.9	52.4	61.1	99.1 29/67	39.6 6/68	161.2 19/54	29.8 16/31	8.2
November	76.1	56.8	66.5	104.6 24/13	42.0 1/04	167.0 30/25	34.8 1/68	9.6
December	81.1	60.8	70.9	108.1 31/68	47.5 29/57	168.8 11/27	38.0 29/57	10.4
Year: Averages	**73.6**	**55.4**	**64.5**	.. ..	.. ..	.. ..	.. ..	7.8
Year: Extremes	..	..	..	**112.2 8/2/33**	**34.2 7/7/16**	**177.3 22/1/14**	**25.0 31/5/64**	..

(a) Records discontinued 1963. (b) 8/1903 and 16/1967. (c) 8/1952 and 6/1956.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (m.bars)	Rel. hum. (%) at 9 a.m. Mean	Highest mean	Lowest mean	Rainfall (inches) Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	Fog Mean No. days
No. of years of observations	30(a)	30(a)	72	72	93	93	93	93	93	72
January	14.8	51	63	41	0.33	3	2.17 1879	Nil (b)	1.74 *27/79*	0
February	14.7	51	65	43	0.44	3	6.55 1955	Nil (b)	3.43 17/55	0
March	14.7	57	66	46	0.80	4	5.71 1934	Nil (b)	3.03 9/34	1
April	13.4	61	75	51	1.81	8	5.85 1926	Nil 1920	2.62 30/04	1
May	12.4	70	81	61	4.96	14	12.13 1879	0.77 1949	3.00 17/42	1
June	11.4	75	85	68	7.37	17	18.75 1945	2.16 1877	3.90 10/20	2
July	10.9	76	88	69	6.88	18	16.73 1958	2.42 1876	3.00 *4/91*	1
August	10.7	71	83	62	5.56	18	12.53 1945	0.46 1902	2.91 14/45	1
September	11.6	66	75	58	3.18	14	7.84 1923	0.34 1916	1.86 18/66	0
October	11.7	60	75	52	2.18	12	7.87 1890	0.15 1946	1.97 4/67	0
November	12.7	52	66	41	0.82	6	2.78 1916	Nil 1891	1.54 29/56	0
December	13.9	51	63	39	0.58	4	3.17 1951	Nil (b)	1.84 3/51	0
Year: Totals	..	..	..	..	**34.91**	**121**	.. ..	.. ..	.. ..	7
Year: Averages	**12.7**	**62**	..	..	..	..	.. ..	.. ..	.. ..	..
Year: Extremes	..	..	**88**	**39**	..	..	**18.75 6/1945**	**Nil (c)**	**3.90 10/6/20**	..

(a) Standard thirty years normal (1911–1940). (b) Various years. (c) November to April, various years.

Figures such as *27/98*, 29/56, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: DARWIN, NORTHERN TERRITORY

(Lat. 12° 28′ S., Long. 130° 51′ E. Height above M.S.L. 97 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind*					*Mean amt evaporation (in)*	*No. days lightning*	*Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average miles per hour	*Highest mean speed in one day (mph)*	*Highest gust speed (mph)*	*Prevailing direction 9 a.m.*	*Prevailing direction 3 p.m.*				
No. of years of observations	85	15	..	17 (*b*)	..	..	9	30	30	30
January	1,006.1	6.1	..	66	NW & S	W & NW	6.04	16	5.7	1
February	1,006.3	6.7	..	63	W & S	W & NW	5.61	16	5.6	1
March	1,007.2	5.3	..	98	SE	W & NW	6.14	14	5.0	3
April	1,009.2	6.1	..	42	SE	E	6.49	6	2.8	11
May	1,010.9	6.5	..	39	SE	E	7.27	1	1.7	19
June	1,012.2	6.5	..	40	SE	E & SE	6.97	0	1.3	22
July	1,012.7	6.2	..	39	SE	E & SE	7.05	0	1.1	23
August	1,012.6	5.9	..	45	SE	NW & N	7.73	0	1.0	23
September	1,011.7	6.2	..	40	SE & S	NW & N	8.07	1	1.6	18
October	1,010.5	6.2	..	53	S	NW & N	9.17	8	2.6	10
November	1,008.7	5.5	..	73	W & S	NW & N	8.20	17	3.8	4
December	1,006.9	6.2	..	66	NW & S	NW & N	7.18	17	4.8	2
Year Totals	..	..	..	..	..	..	85.92	96	..	137
Year Averages	1,009.6	6.1	..	..	SE	NW	..	..	3.1	..
Year Extremes	..	..	..	98	..	..	..	..	..	.

(*a*) Scale 0–8. (*b*) Several incomplete years.

TEMPERATURE AND SUNSHINE

Month	*Mean temperature (°Fahr.)*			*Extreme shade temperature (°Fahr.)*		*Extreme temperature (°Fahr.)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of observations	85	85	85	86(*a*)	86(*a*)	26(*b*)	..	15
January	89.9	77.0	83.5	100.0 *2/82*	68.0 *20/92*	168.0 26/42	..	5.8
February	89.5	76.6	83.1	100.9 *20/87*	63.0 25/49	163.6 (*c*)	..	6.2
March	90.4	76.6	83.5	102.0 (*d*)	66.6 31/45	165.6 23/38	..	6.9
April	91.7	75.5	83.6	104.0 *7/83*	60.8 11/43	163.0 1/38	..	8.3
May	90.2	72.2	81.2	102.3 *8/84*	57.5 28/67	160.0 5/20	..	9.5
June	87.7	68.9	78.3	98.6 17/37	53.8 23/63	155.2 2/16	..	9.8
July	86.9	67.2	77.1	98.0 *17/88*	50.7 29/42	156.0 28/17	..	9.8
August	88.7	69.3	79.0	98.0 19/00	56.4 11/63	156.2 28/16	..	10.4
September	90.9	73.6	82.3	102.0 *20/82*	62.1 9/63	157.0 (*e*)	..	9.9
October	92.6	77.0	84.8	104.8 *17/92*	66.9 8/66	160.5 30/38	..	9.5
November	92.9	77.6	85.3	103.3 *9/84*	66.8 4/50	170.4 14/37	..	8.2
December	91.7	77.6	84.7	102.0 *9/83*	65.0 4/60	169.0 26/23	..	6.9
Year Averages	**90.3**	**74.1**	**82.2**	.. ..	.. ..	.. ..	..	**8.4**
Year Extremes	..	..	..	**104 8** **17/10/1892**	**50.7** **29/7/42**	**170.4** **14/11/37**	..	..

(*a*) Years 1882–1941 at Post Office, 1942–1966 at Aerodrome; sites not strictly comparable. (*b*) Records discontinued 1942. c) 5/1938 and 23/1938. (*d*) 26/1883 and 27/1883. (*e*) 28/1916 and 3/1921.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (inches)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of observations	85	85	57(*a*)	57(*a*)	86(*b*)	69	100(*c*)	100(*c*)	100(*c*)	30
January	31.1	80	89	69	15.40	19	27.86 1896	2.67 1906	11.67 7/97	0.0
February	31.1	81	88	71	13.00	18	28.23 1956	0.53 1931	11.00 18/55	0.0
March	30.7	80	84	69	10.24	17	23.42 1965	0.81 1911	7.18 6/19	0.0
April	27.0	72	80	60	4.05	8	23.74 1891	Nil 1950	6.22 4/59	0.0
May	21.8	65	76	49	0.56	1	10.27 1882	Nil (*d*)	2.19 6/22	0.0
June	18.7	63	75	52	0.12	0	1.53 1902	Nil (*d*)	1.32 10/02	0.4
July	17.6	62	71	47	0.05	0	2.56 1900	Nil (*d*)	1.71 2/00	1.1
August	20.6	66	73	53	0.06	0	3.30 1947	Nil (*d*)	3.15 22/47	0.7
September	24.7	68	73	54	0.51	2	4.26 1942	Nil (*d*)	2.78 21/42	0.2
October	27.7	68	72	60	1.98	5	13.34 1954	Nil (*d*)	3.74 18/56	0.0
November	29.3	70	75	62	4.96	11	15.72 1938	0.40 1870	4.73 9/51	0.0
December	30.5	75	83	65	9.55	16	22.94 1965	0.98 1934	7.87 28/10	0.0
Year Totals	.	.	..	..	60 48	97	.	..	. .	2.4
Year Averages	25.9	71	.	.	..	..	.. ..		.. ..	..
Year Extremes	..	..	89	47	..	..	28.23 2/1956(*f*)	Nil, (*e*)	11.67 7/1/1897	..

(*a*) 1882 to 1938 at Post Office. (*b*) 1869 to 1962 at Post Office, eight years missing. (*c*) The figures below are the highest or owest recorded at either the Post Office or Aerodrome sites. (*d*) Various years. (*e*) April to October, various years. (*f*) 30 65 nches were recorded February 1967 at Darwin Regional Office. Records from this office will be incorporated in future tables.

Figures such as *2/82*, 26/42, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics elate to nineteenth century.

CLIMATOLOGICAL DATA: ADELAIDE, SOUTH AUSTRALIA

(Lat. 34° 56′ S., Long 138° 35′ E. Height above M.S.L. 140 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind (height of anemometer 75 ft)*					*Mean amt evaporation (in)*	*No. days lightning*	*Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average miles per hour	*Highest mean speed in one day (mph)*	*Highest gust speed (mph)*	*Prevailing direction 9 a.m.*	*Prevailing direction 3 p.m.*				
No. of years of observations	112	17(*b*)	17(*b*)	52	30(*c*)	30(*c*)	95(*d*)	97	101	54
January	1,013.2	7.8	18.2 3/55	72	SW	SW	9.29	2.1	2.9	12.4
February	1,014.3	7.4	17.8 25/67	66	NE	SW	7.52	1.7	2.9	10.8
March	1,017.2	6.9	19.1 24/64	78	S	SW	6.26	1.7	3.2	10.8
April	1,019.9	6.9	23.2 10/56	81	NE	SW	3.78	1.4	4.1	6.6
May	1,020.1	7.0	23.5 19/53	70	NE	NW	2.30	1.5	4.7	4.6
June	1,019.7	7.3	18.4 12/53	67	NE	N	1.47	1.5	5.0	4.0
July	1,020.0	7.2	20.4 13/64	92	NE	NW	1.47	1.5	4.8	3.6
August	1,019.0	7.8	23.7 8/55	75	NE	SW	2.09	1.7	4.2	4.9
September	1,017.6	8.0	21.7 16/65	69	NNE	SW	3.18	1.8	4.2	5.8
October	1,015.9	8.3	22.0 1/68	75	NNE	SW	5.03	2.7	4.2	5.7
November	1,015.1	8.4	22.5 14/68	81	SW	SW	6.78	3.0	3.9	6.6
December	1,013.3	8.2	17.9 6/52	75	SW	SW	8.62	2.2	3.4	9.0
Year Totals	..	..	.. ..	..	..	..	**57.79**	**22.8**	..	**84.8**
Year Averages	**1,017.1**	**7.6**	.. ..	..	**NE**	**SW**	..	..	**4.0**	..
Year Extremes	..	..	**23.7 8/8/55**	**92**	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Records taken from a Munro Anemometer 1952–1967. (*c*) Standard thirty years normal (1931–1960). (*d*) Measured by Australian tank (1870–1962).

TEMPERATURE AND SUNSHINE

Month	*Mean temperature (°Fahr.)*			*Extreme shade temperature (°Fahr.)*		*Extreme temperature (°Fahr.)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of observations	112	112	112	112	112	54(*a*)	108	86
January	85.4	61.5	73.5	117.7 12/39	45.1 *21/84*	180.0 *18/82*	36.5 *14/79*	9.9
February	85.0	61.7	73.3	113.6 *12/99*	45.5 23/18	170.5 10/00	35.8 23/26	9.3
March	80.5	59.0	69.7	110.5 9/34	43.9 21/33	174.0 *17/83*	32.1 21/33	7.8
April	72.9	54.6	63.7	98.6 5/38	39.6 *15/59*	155.0 *1/83*	28.0 14/63	5.9
May	65.6	50.4	58.0	89.5 4/21	36.9 (*b*)	148.2 *12/79*	25.6 19/28	4.8
June	60.5	46.9	53.7	78.1 4/57	32.5 (*c*)	138.8 *18/79*	21.0 24/44	4.2
July	58.9	44.9	51.9	74.0 11/06	32.0 24/08	134.5 *26/90*	22.1 30/29	4.3
August	61.6	46.0	53.8	85.0 31/11	32.3 *17/59*	140.0 *31/92*	22.8 11/29	5.2
September	66.2	48.1	57.1	95.1 30/61	32.7 *4/58*	160.5 *23/82*	25.0 25/27	6.1
October	71.8	51.5	61.7	102.9 21/22	36.1 *20/58*	162.0 30/21	26.6 22/66	7.2
November	77.6	55.2	66.4	113.5 *21/65*	40.8 2/09	166.9 *20/78*	31.5 2/09	8.5
December	82.2	58.8	70.5	114.6 29/31	43.0 (*d*)	175.7 *7/99*	32.5 *4/84*	9.4
Year Averages	**72.4**	**53.2**	**62.8**	.. ..	.. ..	.. ..	.. ..	6.9
Year Extremes	..	..	..	**117.7 12/1/39**	**32.0 24/7/08**	**180.0 18/1/1882**	**21.0 24/6/44**	..

(*a*) Records incomplete 1931–1934. Discontinued 1934. (*b*) 26/1895 and 24/1904. (*c*) 27/1876 and 24/1944. (*d*) 16/1861 and 4/1906.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (inches)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of observations	101	101	101	101	130	130	130	130	130	69
January	11.6	40	59	29	0.76	4	3.31 1941	Nil (*a*)	2.30 *2/89*	0.0
February	12.4	42	57	30	0.77	4	6.09 1925	Nil (*a*)	5.57 7/25	0.0
March	11.9	47	62	29	0.95	5	4.59 1878	Nil (*a*)	3.50 *5/78*	0.0
April	11.4	56	72	37	1.71	10	5.81 1938	Nil 1945	3.15 *5/60*	0.0
May	10.9	67	76	49	2.71	13	7.75 1875	0.10 1934	2.75 *1/53*	0.4
June	9.8	75	84	63	2.88	15	8.58 1916	0.23 1958	2.11 1/20	1.1
July	9.4	76	87	66	2.60	16	5.44 1890	0.39 1899	1.75 *10/65*	1.3
August	9.7	70	78	54	2.44	16	6.20 1852	0.33 1944	2.23 *19/51*	0.6
September	10.0	60	72	44	2.00	13	5.83 1923	0.27 1951	1.59 20/23	0.2
October	10.3	51	67	29	1.74	11	5.24 1949	0.17 1914	2.24 16/08	0.0
November	10.4	44	58	31	1.21	8	4.45 1839	0.05 1967	2.96 12/60	0.0
December	11.2	40	56	31	1.04	6	3.98 1861	Nil 1904	2.42 23/13	0.0
Year Totals	..	..	..	..	**20.81**	**121**	.. ..	.. ..	.. ..	3.6
Year Averages	**10.7**	**56**	..	..	..	..	.. ..	.. ..	.. ..	..
Year Extremes	..	..	**87**	**29**	..	..	**8.58 6/1916**	**Nil** (*b*)	**5.57 7/2/25**	..

(*a*) Various years. (*b*) December to April, various years.

Figures such as 3/55, *21/84*, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: BRISBANE, QUEENSLAND

(Lat. 27° 28′ S., Long. 153° 2′ E. Height above M.S.L. 134 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind (height of anemometer 105 ft)*					*Mean amt evaporation (in)*	*No. days lightning*	*Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average miles per hour	*Highest mean speed in one day (mph)*	*Highest gust speed (mph)*	*Prevailing direction 9 a.m.*	*Prevailing direction 3 p.m.*				
No. of years of observations	82	53	53	53	30(*b*)	30(*b*)	58	82	78(*c*)	61
January	1,011.7	7.7	19.7 23/47	68	SE	NE	6.91	6.4	4.6	3.3
February	1,012.5	7.5	23.2 21/54	67	SE	NE	5.47	5.2	4.8	2.4
March	1,014.6	7.3	20.3 1/29	66	S	E	5.23	4.0	4.3	5.5
April	1,017.3	6.5	16.7 3/25	64	S	E	4.30	3.2	3.6	7.8
May	1,018.4	6.2	17.9 17/26	49	SW	SE	3.41	2.9	3.3	9.9
June	1,018.5	6.3	19.0 14/28	59	SW	W & SW	2.74	2.0	3.3	10.3
July	1,018.7	6.1	22.0 13/54	69	SW	W & SW	2.95	2.0	2.9	13.3
August	1,018.9	6.3	14.8 4/35	62	SW	NE	3.76	3.2	2.6	13.5
September	1,017.6	6.5	16.1 1/48	63	SW	NE	4.58	4.7	2.7	12.7
October	1,015.9	6.9	15.7 1/41	62	S	NE	5.81	6.1	3.4	8.5
November	1,014.2	7.3	15.5 10/28	69	SE & N	NE	6.49	7.6	3.8	6.1
December	1,012.0	7.5	19.5 15/26	79	SE	NE	7.19	8.8	4.2	4.2
Year: Totals	..	..	.. ..	..	..	..	**58.84**	**56.1**	..	**97.5**
Year: Averages	**1,015.9**	**6.8**	.. ..	..	**SW**	**NE**	..	..	**3.6**	..
Year: Extremes	..	..	**23.2** **21/2/54**	**79**	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Standard thirty years normal (1911–1940). (*c*) July to December inclusive, seventy-seven years.

TEMPERATURE AND SUNSHINE

Month	*Mean temperature (°Fahr.)*			*Extreme shade temperature (°Fahr.)*		*Extreme temperature (°Fahr.)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of observations	82	82	82	82	82	50(*a*)	81	60
January	84.8	68.9	76.9	109.8 26/40	58.8 *4/93*	169.0 2/37	49.9 *4/93*	7.6
February	84.1	68.7	76.5	105.7 21/25	58.5 23/31	165.2 6/10	49.1 22/31	7.1
March	82.1	66.6	74.3	101.8 13/65	52.4 29/13	162.5 6/39	45.4 29/13	6.8
April	78.8	61.6	70.2	95.2 (*b*)	44.4 25/25	153.8 11/16	36.7 24/25	7.8
May	73.6	55.5	64.6	90.3 21/23	40.6 30/51	147.0 1/10	29.8 *8/97*	6.8
June	69.4	51.3	60.3	88.9 19/18	36.3 29/08	136.0 3/18	25.4 *23/88*	6.5
July	68.4	48.8	58.7	84.3 23/46	36.1 (*c*)	146.1 20/15	23.9 *11/90*	7.1
August	71.1	50.1	60.6	91.0 14/46	36.9 13/64	141.9 20/17	27.1 *9/99*	7.9
September	75.2	54.8	65.1	100.9 22/43	40.7 *1/96*	155.5 26/03	30.4 *1/89*	8.3
October	79.0	60.1	69.5	105.3 30/58	43.3 *3/99*	157.4 31/18	34.9 *8/89*	8.3
November	82.0	64.3	73.2	106.1 18/13	48.5 2/05	162.3 *7/89*	38.8 1/05	8.2
December	84.5	67.3	75.8	105.9 *26/93*	56.3 5/55	165.9 28/42	49.1 *3/94*	8.1
Year: Averages	**77.7**	**59.8**	**68.8**	.. ..	.. ..	.. ..	.. ..	7.5
Year: Extremes	..	..	..	**109.8** **26/1/40**	**36.1** (*c*)	**169.0** **2/1/37**	**23.9** **11/7/1890**	..

(*a*) From 1887 to March 1947, excluding 1927 to 1936. (*b*) 9/1896 and 5/1903. (*c*) 12/1894 and 2/1896.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (inches)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of observations	64(*a*)	82	81	81	117	109	116(*b*)	116(*b*)	116(*b*)	82
January	21.7	66	79	53	6.31	13	27.72 1895	0.32 1919	18.31 *21/87*	0.5
February	22.0	69	82	55	6.35	13	40.39 1893	0.58 1849	10.61 6/31	0.6
March	20.9	71	85	56	5.78	15	34.04 1870	Nil 1849	11.18 14/08	1.2
April	17.5	71	80	56	3.48	12	15.28 1867	0.04 1944	5.46 5/33	2.3
May	14.3	71	85	59	2.68	9	13.85 1876	Nil 1846	5.62 *9/79*	3.2
June	12.1	72	84	54	2.82	8	25.49 1967	Nil 1847	11.12 *12/67*	3.1
July	11.1	70	88	53	2.19	7	9.10 1965	Nil (*c*)	7.60 20/65	3.1
August	11.7	67	80	53	1.85	7	14.67 1879	Nil (*d*)	4.89 *12/87*	3.7
September	13.8	63	76	47	1.94	8	5.43 1886	0.10 1907	3.13 12/65	2.6
October	16.0	60	72	48	2.71	9	11.41 1949	0.03 1948	5.34 25/49	1.2
November	18.1	59	72	45	3.63	10	12.40 1917	Nil 1842	4.46 *16/86*	0.5
December	20.1	61	70	51	5.07	12	17.36 1942	0.35 1865	6.60 *28/71*	0.4
Year: Totals	..	..	..	..	**44.81**	**123**	.. ..	.. ..	.. ..	**22.4**
Year: Averages	**16.6**	**67**	..	..	..	..	.. ..	.. ..	.. ..	..
Year: Extremes	..	..	**88**	**45**	..	..	**40.39** **2/1893**	**Nil** (*e*)	**18.31** **21/1/1887**	..

(*a*) All records up to and including 1950. (*b*) Records incomplete for various years between 1846 and 1859. (*c*) 1841 and 1951. (*d*) 1862, 1869, and 1880. (*e*) Various months in various years.

Figures such as 23/47, *4/93*, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: SYDNEY, NEW SOUTH WALES

(Lat. 33° 52′ S., Long. 151° 12′ E. Height above M.S.L. 138 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind (height of anemometer 58 ft)*					*Mean amt evaporation (in)*	*No. days lightning*	*Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average miles per hour	*Highest mean speed in one day (mph)*	*Highest gust speed (mph)*	*Prevailing direction 9 a.m.*	*Prevailing direction 3 p.m.*				
No. of years of observations	59	25(*b*)	25(*b*)	25(*b*)	25(*b*)	25(*b*)	88	109	107	58
January	1,012.7	7.6	18.8 10/49	93	NE	NE	5.32	4.6	4.7	5.0
February	1,014.0	7.2	18.8 18/57	63	NE	ENE	4.20	4.1	4.8	4.7
March	1,016.4	6.5	20.7 10/44	58	WNW	ENE	3.65	3.6	4.4	5.9
April	1,018.2	6.3	22.5 24/44	72	W	ENE	2.71	3.3	4.1	7.2
May	1,018.6	6.5	21.0 18/55	63	W	ENE	1.93	2.8	3.9	7.9
June	1,018.8	7.2	22.4 10/47	84	W	WSW	1.49	2.0	4.0	8.2
July	1,018.3	7.1	21.3 20/51	66	W	WSW	1.56	2.1	3.5	10.4
August	1,017.9	7.5	24.6 9/51	68	WNW	WNW	2.02	2.8	3.3	10.5
September	1,017.0	7.2	21.8 23/42	70	WNW	NE	2.75	3.6	3.5	9.1
October	1,015.0	7.6	24.5 1/57	95	WNW	ENE	3.91	4.4	4.1	6.7
November	1,013.4	7.7	19.8 21/54	71	WNW	ENE	4.70	5.2	4.5	5.5
December	1,012.0	7.6	22.5 11/52	75	NE	ENE	5.38	5.5	4.6	4.9
Year Totals	..	..	.. ..	..	..	..	39.62	44.0	..	85.8
Year Averages	**1,016.1**	**7.2**	.. ..	..	**WNW**	**ENE**	..	..	**4.2**	..
Year Extremes	..	..	**24.6 9/8/51**	**95**	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Years 1938–1962 inclusive.

TEMPERATURE AND SUNSHINE

Month	*Mean temperature (°Fahr.)*			*Extreme shade temperature (°Fahr.)*		*Extreme temperature (°Fahr.)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of observations	110	110	110	110	110	84(*a*)	110	48
January	78.2	65.0	71.6	113.6 14/39	51.1 18/49	164.3 26/15	43.7 6/25	7.2
February	77.8	65.2	71.5	107.8 8/26	49.3 *28/63*	168.3 14/39	42.8 22/33	6.6
March	76.0	63.2	69.6	102.6 *3/69*	48.8 *14/86*	158.3 10/26	39.9 17/13	6.3
April	71.7	58.1	64.9	91.4 1/36	44.6 *27/64*	144.1 *10/77*	33.3 24/09	6.1
May	66.2	52.2	59.2	86.0 1/19	40.2 *22/59*	129.7 *1/96*	29.3 25/17	5.8
June	61.8	48.4	55.1	80.4 11/31	35.7 22/32	125.5 2/23	28.0 22/32	5.3
July	60.5	46.1	53.3	78.3 22/26	35.9 *12/90*	124.7 *19/77*	24.0 *4/93*	6.1
August	63.3	47.7	55.5	86.8 24/54	36.8 *3/72*	149.0 *30/78*	26.1 4/09	6.8
September	67.3	51.4	59.3	94.2 26/65	40.8 2/45	142.2 *12/78*	30.1 17/05	7.2
October	71.4	55.9	63.7	99.4 4/42	42.2 6/27	152.2 20/33	32.7 9/05	7.3
November	74.4	59.6	67.0	104.5 6/46	45.8 1/05	158.5 *28/99*	36.0 6/06	7.6
December	76.9	62.9	69.9	108.0 20/57	48.4 3/24	164.5 *27/89*	41.4 3/24	7.3
Year Averages	**70.5**	**56.3**	**63.4**	.. ..	.. ..	.. ..	.. ..	**6.6**
Year Extremes	..	..	..	**113.6 14/1/39**	**35.7 22/6/32**	**168.3 14/2/39**	**24.0 4/7/1893**	..

(*a*) Records discontinued 1946.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (inches)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of observations	93	93	93	93	110	110	110	110	110	48
January	18.8	68	78	58	3.74	13	15.26 1911	0.25 1932	7.08 13/11	0.3
February	19.3	70	81	60	4.38	13	22.22 1956	0.12 1939	8.90 *25/73*	0.7
March	18.3	74	85	62	5.01	14	20.52 1942	0.42 1876	11.05 28/42	1.6
April	15.1	74	87	63	5.03	13	24.49 1861	0.06 1868	7.52 *29/60*	2.3
May	12.2	77	90	63	4.96	13	23.03 1919	0.14 1957	8.36 *28/89*	3.3
June	10.3	75	89	63	5.18	12	25.30 1950	0.16 1962	5.17 *16/84*	2.7
July	9.4	74	88	59	4.28	11	13.23 1950	0.10 1946	7.80 7/31	2.2
August	9.7	69	84	54	3.15	11	14.89 1899	0.04 1885	5.33 *2/60*	1.9
September	11.2	65	79	49	2.74	11	14.05 1879	0.08 1882	5.69 *10/79*	1.0
October	13.1	62	77	46	2.97	12	11.13 (*a*)	0.21 1867	6.37 13/02	0.6
November	15.0	62	79	42	3.00	12	20.36 1961	0.07 1915	5.24 27/55	0.5
December	17.4	65	77	51	3.11	13	15.82 1920	0.23 1913	4.75 13/10	0.4
Year Totals	..	..	..	..	**47.54**	**148**	.. ..	.. ..	.. ..	**17.4**
Year Averages	**14.1**	**69**	..	..	..	..	.. ..	.. ..	.. ..	
Year Extremes	..	..	**90**	**42**	..	..	**25.30 6/1950**	**0.04 8/1885**	**11.05 28/3/42**	..

(*a*) 1916 and 1959.

Figures such as 10/49, *28/63*, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY

(Lat. 35° 19′ S., Long. 149° 11′ E. Height above M.S.L., 1,872 ft)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind (height of anemometer 20 ft)*						*Mean amt evaporation (in)*	*No. days thunder*	*Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average miles per hour	*Highest mean speed in one day (mph)*		*Highest gust speed (mph)*	*Prevailing direction*					
						9 a.m.	*3 p.m.*				
No. of years of observations	30	39(*b*)		39(*b*)	30(*c*)	30(*c*)	30(*c*)	38(*d*)	30	30	30(*e*)
January	1,012.1	4.2	14.9	23/33	65	NW	NW	7.77	3.1	4.0	8.3
February	1,012.8	3.8	15.3	24/33	64	NW	NW	6.12	2.5	4.2	7.0
March	1,016.1	3.3	18.2	28/42	69	SE	NW	5.13	1.4	4.0	8.3
April	1,018.7	3.1	18.6	8/45	66	NW	NW	3.14	0.8	4.1	7.1
May	1,018.8	3.2	13.2	27/58	64	NW	NW	1.89	0.5	4.4	6.9
June	1,021.0	3.0	16.1	2/30	60	NW	NW	1.24	0.2	4.6	6.8
July	1,020.3	3.1	23.4	7/31	63	NW	NW	1.23	0.1	4.4	7.2
August	1,018.9	3.7	15.7	25/36	70	NW	NW	1.75	0.7	4.3	7.2
September	1,017.3	3.7	17.4	28/34	61	NW	NW	2.78	1.1	4.0	8.1
October	1,015.0	4.0	14.7	12/57	74	NW	NW	4.26	1.9	4.4	6.3
November	1,011.9	4.4	17.2	28/42	79	NW	NW	5.71	3.1	4.4	6.0
December	1,010.9	4.3	16.1	11/38	66	NW	NW	7.22	3.4	4.2	7.5
Year **Totals**	..	..		..	..	..	..	**48.24**	**18.8**	..	**86.6**
Year **Averages**	**1,016.1**	**3.6**		..	..	NW	NW	..	..	**4.3**	**7.2**
Year **Extremes**	..	..	**23.4**	**7/7/31**	**79**	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Recorded at Forestry and Timber Bureau, Yarralumla, where a cup anemometer is installed. (*c*) Recorded at Meteorological Office, R.A.A.F. Fairbairn, where a Dines Pressure Tube anemometer is installed. (*d*) Australian tank, Yarralumla, 1929–66. (*e*) 1940–69. Formerly assessed over 37-year period at Yarralumla.

TEMPERATURE AND SUNSHINE

Month	*Mean temperature (°Fahr.)*			*Extreme shade temperature (°Fahr.)*				*Extreme temperature (°Fahr.)*			*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*		*Lowest*		*Highest in sun*	*Lowest on grass*		
No. of years of observations	30	30	30		30		30			18	32
January	82.0	55.0	68.5	(*a*)106.6	31/68	35.3	1/56	..	31.2	1/56	9.1
February	80.0	54.5	67.3	108.0	1/68	37.4	16/62	..	32.5	16/62	8.3
March	76.1	50.8	63.5	97.6	9/40	30.1	24/67	..	24.8	(*b*)	7.5
April	67.3	43.6	55.5	90.7	12/68	27.0	24/69	..	17.0	24/69	6.9
May	58.5	36.9	47.7	76.1	10/67	18.8	16/57	..	13.3	26/69	5.5
June	53.5	33.7	43.6	68.2	3/57	16.7	8/57	..	9.8	16/59	4.6
July	51.6	31.6	41.6	61.4	(*c*)	16.3	5/57	..	10.3	21/67	5.1
August	54.7	33.4	44.1	71.0	24/54	18.1	11/69	..	9.0	11/69	6.1
September	60.4	36.8	48.6	83.4	26/65	22.0	5/40	..	15.0	24/69	7.4
October	66.2	42.3	54.3	90.8	13/46	26.0	4/57	..	20.8	4/57	8.0
November	72.2	46.7	59.5	101.8	19/44	28.8	28/67	..	20.7	28/67	8.8
December	78.5	51.7	65.1	101.9	21/53	34.0	18/64	..	25.0	18/64	9.0
Year **Averages**	**66.7**	**43.1**	**54.9**	..	..	..	..	..	..	..	**7.2**
Year **Extremes**	..	..	..	**108.0**	**1/2/68**	**16.3**	**5/7/57**	..	**9.0**	**11/8/69**	..

(*a*) A temperature of 109 0 was recorded at the former Acton station on 11.1 39. (*b*) 30/58 and 24/67. (*c*) 2/46 and 9/54.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (inches)*								*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*		*Least monthly*		*Greatest in one day*		
No. of years of observations	30(*a*)	30	30	30	30	30		30		30		30	30
January	13.1	58	75	42	2.27	8	6.46	1941	0.04	1947	3.74	12/45	0.5
February	13.8	65	81	53	2.03	7	5.70	1948	Nil	1963	2.07	3/46	0.8
March	12.5	67	81	53	2.10	7	12.29	1950	0.05	1954	2.60	5/59	1.6
April	10.3	73	84	38	1.96	7	6.06	1940	0.08	1942	2.96	2/59	2.6
May	8.4	83	96	73	2.12	9	5.62	1948	0.06	1961	3.77	3/48	6.8
June	7.1	85	97	73	1.60	10	4.96	1956	0.26	1944	1.78	25/56	6.9
July	6.7	84	93	68	1.54	11	4.07	1960	0.25	1940	1.38	10/57	6.9
August	7.0	78	92	58	1.68	12	4.18	1955	0.28	1944	1.11	3/51	4.0
September	8.3	72	82	55	1.87	10	4.48	1962	0.23	1946	1.62	16/62	2.7
October	9.7	67	82	50	2.80	11	5.81	1959	0.25	1949	4.13	21/59	1.8
November	10.4	57	76	38	2.38	9	5.31	1961	0.52	1940	2.51	9/50	0.6
December	11.9	56	74	43	2.31	8	6.31	1960	Nil	1967	3.41	30/48	0.1
Year **Totals**	..	..	..	..	**24.66**	**109**	..	..	..	..	..	..	**35.3**
Year **Averages**	**9.9**	**69**	..	..	..	..					..	..	..
Year **Extremes**	..	..	**97**	**38**	..	..	**12.29**	**3/50**	**Nil**	(*b*)	**4.13**	**21/10/59**	..

(*a*) Formerly assessed over 38-year period at Forestry and Timber Bureau, Yarralumla. (*b*) 12/67 and 2/68.

Data shown in the above tables relate to the Meteorological Office, R.A.A.F., Fairbairn, except where otherwise indicated, and cover years up to 1964. Figures such as 23/33, 31/68, etc. indicate, in respect of the month of reference, the day and year of the occurrence.

CLIMATOLOGICAL DATA: MELBOURNE, VICTORIA

(Lat. 37° 49′ S., Long. 144° 58′ E. Height above M.S.L., 114 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind (height of anemometer 93 ft)*					*Mean amt evaporation (in)*	*No. days lightning*	*Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)*	*No. clear days*
		Average miles per hour	*Highest mean speed in one day (mph)*	*Highest gust speed (mph)*	*Prevailing direction 9 a.m.*	*Prevailing direction 3 p.m.*				
No. of years of observations	113	30(*b*)	57	60	51	51	95	60	112	60
January	1,012.8	8.3	21.1 27/41	66	S	S	6.50	1.8	4.1	6.7
February	1,014.2	8.1	19.0 13/47	74	S & SW	S	5.11	2.3	4.0	5.9
March	1,016.8	7.3	18.0 3/61	66	N	S	4.14	1.4	4.4	5.4
April	1,019.0	7.0	19.9 16/47	67	N	S	2.52	1.1	4.8	4.2
May	1,019.2	7.3	20.5 4/61	72	N	N & S	1.56	0.5	5.2	2.9
June	1,018.9	7.3	22.8 16/47	64	N	N	1.15	0.4	5.3	2.7
July	1,018.6	8.0	22.7 22/60	68	N	N	1.13	0.4	5.2	2.6
August	1,017.7	7.8	21.3 20/42	65	N	N & S	1.52	0.7	5.0	2.8
September	1,016.0	8.0	21.1 15/64	69	N	S	2.38	1.0	4.8	3.6
October	1,014.8	8.1	18.6 12/52	69	N	S	3.42	1.6	4.9	3.5
November	1,013.9	8.5	21.2 13/58	71	SW	S	4.55	2.2	4.9	3.1
December	1,012.9	8.4	21.0 12/52	61	S & SW	S	5.80	2.1	4.5	4.4
Year Totals	..	..	.. ..	..	..	..	**39.78**	**15.5**	..	**47.8**
Year Averages	**1,016.2**	**7.8**	.. ..	..	**N**	**S**	..	..	**4.8**	..
Year Extremes	..	..	**22.8 16/6/47**	**74**	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Early records not comparable.

TEMPERATURE AND SUNSHINE

Month	*Mean temperature (°Fahr.)*			*Extreme shade temperature (°Fahr.)*		*Extreme temperature (°Fahr.)*		*Mean daily hours sunshine*
	Mean max.	*Mean min.*	*Mean*	*Highest*	*Lowest*	*Highest in sun*	*Lowest on grass*	
No. of years of observations	114	114	114	114	114	86(*a*)	110	52
January	78.5	56.9	67.7	114.1 13/39	42.0 *28/85*	178.5 *14/62*	30.2 *28/85*	8.1
February	78.1	57.4	67.7	109.5 7/01	40.2 24/24	167.5 *15/70*	30.9 *6/91*	7.5
March	74.8	55.0	64.9	107.0 11/40	37.1 *17/84*	164.5 *1/68*	28.9 (*b*)	6.6
April	68.1	50.8	59.4	94.8 5/38	34.8 *24/88*	152.0 *8/61*	25.0 *23/97*	5.7
May	61.6	46.9	54.3	83.7 7/05	29.9 29/16	142.6 *2/59*	21.1 26/16	3.7
June	56.9	43.9	50.4	72.3 2/57	28.0 *11/66*	129.0 *11/61*	19.9 30/29	3.4
July	55.8	42.1	48.9	69.3 22/26	27.0 *21/69*	125.8 *27/80*	20.5 12/03	3.7
August	58.6	43.4	51.0	77.0 *20/85*	28.3 *11/63*	137.4 *29/69*	21.3 14/02	4.6
September	62.8	45.6	54.2	88.6 28/28	31.0 3/40	142.1 *20/67*	22.8 8/18	5.5
October	67.1	48.5	57.8	98.4 24/14	32.1 *3/71*	154.3 *28/68*	24.8 22/18	5.9
November	71.3	51.4	61.4	105.7 *27/94*	36.5 *2/96*	159.6 *29/65*	24.6 2/96	6.5
December	75.4	54.5	65.0	110.7 *15/76*	40.0 *4/70*	170.3 *20/69*	33.2 1/04	7.3
Year Averages	**67.4**	**49.7**	**58.6**	.. ..	.. ..	.. ..	.. ..	**5.7**
Year Extremes	..	..	..	**114.1 13/1/39**	**27.0 21/7/1869**	**178.5 14/1/1862**	**19.9 30/6/29**	..

(*a*) Records discontinued 1946. (*b*) 17/1884 and 20/1897.

HUMIDITY, RAINFALL, AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rel. hum. (%) at 9 a.m.*			*Rainfall (inches)*					*Fog Mean No. days*
		Mean	*Highest mean*	*Lowest mean*	*Mean mthly*	*Mean No. of days of rain*	*Greatest monthly*	*Least monthly*	*Greatest in one day*	
No. of years of observations	60	62	62	62	114	114	114	114	114	114
January	13.0	60	68	50	1.88	8	6.92 1963	0.01 1932	4.25 29/63	0.1
February	14.1	63	77	48	1.84	7	7.72 1939	0.02 1965	3.44 26/46	0.3
March	13.2	66	79	50	2.09	9	7.50 1911	0.14 1934	3.55 5/19	0.8
April	11.7	72	82	66	2.32	11	7.67 1960	Nil 1923	3.15 23/60	1.9
May	10.4	79	88	70	2.25	14	5.60 1942	0.14 1934	1.85 *18/00*	3.8
June	9.3	83	92	73	1.98	15	4.50 1859	0.31 1858	1.71 21/04	4.8
July	8.9	81	86	75	1.93	15	7.02 1891	0.57 1902	2.93 *12/91*	4.5
August	9.1	75	82	65	1.94	14	4.35 1939	0.48 1903	2.14 *17/81*	2.4
September	9.7	68	76	60	2.33	14	7.93 1916	0.52 1907	2.31 23/16	0.9
October	10.4	63	71	52	2.65	12	7.61 1869	0.29 1914	2.40 21/53	0.4
November	11.1	60	69	52	2.30	12	8.11 1954	0.25 1895	2.86 21/54	0.2
December	12.3	59	69	48	2.28	10	7.18 1863	0.11 1904	3.92 4/54	0.2
Year Totals	..	..	..	..	**25.79**	**142**	.. ..	.. ..	.. ..	**20.3**
Year Averages	**11.1**	**69**	..	..	..	..	.. ..	.. ..	.. ..	..
Year Extremes	..	..	**92**	**48**	..	..	**8.11 11/1954**	**Nil 4/1923**	**4.25 29/1/63**	..

Figures such as 27/41, *28/85*, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: HOBART, TASMANIA

(Lat. 42° 53′ S., Long. 147° 20′ E. Height above M.S.L. 177 ft)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)	Wind (height of anemometer 40 ft)					Mean amt evaporation (in)	No. days lightning	Mean amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average miles per hour	Highest mean speed in one day (mph)	Highest gust speed (mph)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations	83	58	58	78	30(*b*)	30(*b*)	55	30(*b*)	83	30(*b*)
January	1,010.6	7.7	20.8 30/16	81	NNW	SSE	4.86	0.9	5.1	1.9
February	1,012.9	7.0	25.2 4/27	75	NNW	SSE	3.73	1.0	5.0	2.3
March	1,014.4	6.7	21.4 13/38	79	NW	SSE	3.18	1.2	4.8	2.4
April	1,015.7	6.7	24.1 9/52	74	NW	W	2.05	0.7	5.1	1.7
May	1,015.3	6.4	22.0 21/65	84	NNW	NW	1.38	0.4	5.0	2.4
June	1,015.4	6.3	23.7 27/20	82	NW	NW	0.93	0.4	5.0	2.4
July	1,014.0	6.5	22.9 22/53	80	NNW	NNW	0.92	0.3	4.8	2.0
August	1,012.6	6.8	25.5 19/26	87	NNW	NW	1.28	0.4	4.9	2.1
September	1,011.8	7.7	26.7 28/65	93	NNW	NW	1.99	0.7	4.9	1.5
October	1,010.5	7.8	20.2 3/65	87	NWN	SW	2.92	0.6	5.3	1.0
November	1,009.8	8.0	21.2 18/15	84	NNW	S	3.75	0.7	5.4	1.3
December	1,009.5	7.6	23.4 1/34	76	NNW	SSE	4.39	0.5	5.4	1.1
Year Totals	..	..	.. ..	..	..	..	31.38	7.8	..	22.1
Year Averages	1,012.7	7.1	.. ..	..	NNW	W	..	..	5.1	..
Year Extremes	..	..	26.7 28/9/65	93	..	..	..	..	..	..

(*a*) Scale 0–8. (*b*) Standard thirty years normal (1911–1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme temperature (°Fahr.)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of observations	85	85	85	85	85	57(*a*)	81	73
January	70.5	52.6	61.5	105.0 (*b*)	40.1 (*c*)	160.0 (*d*)	30.6 *19/97*	7.5
February	70.6	52.9	61.7	104.4 *12/99*	39.0 *20/87*	165.0 *24/98*	28.3 *—/87*	6.7
March	67.9	50.8	59.3	99.1 13/40	35.2 31/26	150.9 26/44	27.5 30/02	6.0
April	62.5	47.5	55.0	87.1 1/41	33.2 14/63	142.0 *18/93*	25.0 *—/86*	4.8
May	57.5	44.0	50.7	77.8 5/21	29.2 20/02	128.0 (*e*)	20.0 19/02	4.2
June	53.0	41.2	47.1	69.2 1/07	29.2 28/44	122.0 *12/94*	18.1 24/63	3.7
July	52.5	39.9	46.2	66.1 14/34	27.7 *11/95*	121.0 *12/93*	18.7 *16/86*	4.2
August	55.1	41.0	48.1	71.6 28/14	28.8 5/62	129.0 *—/87*	20.1 7/09	4.8
September	58.9	43.1	51.0	81.7 23/26	31.0 *16/97*	138.0 *23/93*	18.3 16/26	5.5
October	62.2	45.5	53.8	92.0 24/14	32.0 *12/89*	156.0 *9/93*	23.8 (*f*)	5.9
November	65.4	48.1	56.7	98.3 26/37	35.0 16/41	154.0 *19/92*	26.0 *1/08*	6.8
December	68.3	50.9	59.6	105.2 *30/97*	38.0 3/06	161.5 10/39	27.2 *—/86*	6.9
Year Averages	62.0	46.5	54.2	.. ..	.. ..	.. ..	.. ..	5.6
Year Extremes	..	..	..	105.2 30/12/1897	27.7 11/7/1895	165.0 24/2/1868	18.1 24/6/63	..

(*a*) Period 1934–1938 not comparable; records discontinued 1946. (*b*) 1/1900 and 19/1959. (*c*) 9/1937 and 11/1937. (*d*) 5/1886 and 13/1905. (*e*) —/1899 and —/1893. (*f*) 1/1886 and 1/1899.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (m.bars)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog Mean No. days
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of observations	75	75	75	75	86	86	86	86	86	47(*a*)
January	11.0	58	81	45	1.91	11	5.91 1893	0.17 (*b*)	2.96 30/16	0.1
February	11.7	62	83	49	1.58	10	6.72 1964	0.11 1914	2.20 1/54	0.0
March	11.0	65	78	52	1.85	11	10.05 1946	0.29 1943	3.47 17/46	0.3
April	10.0	70	84	57	2.16	12	9.75 1960	0.07 1904	5.25 23/60	0.2
May	8.8	75	86	61	1.91	14	8.43 1958	0.14 1913	1.75 *2/93*	0.6
June	7.9	78	91	61	2.36	15	9.38 1954	0.28 1886	5.80 7/54	1.1
July	7.6	78	87	72	2.10	15	6.12 1967	0.17 1950	2.51 18/22	0.8
August	7.9	73	86	59	1.90	16	6.32 1946	0.30 1892	2.28 *14/90*	0.5
September	8.3	66	81	52	2.08	15	7.93 1957	0.38 1951	6.15 15/57	0.3
October	9.1	62	74	52	2.51	17	7.60 1947	0.39 1914	2.58 4/06	0.1
November	9.6	58	73	49	2.15	14	7.39 1885	0.33 1921	3.70 *30/85*	0.1
December	10.6	58	73	42	2.20	13	7.72 1916	0.17 1931	3.33 5/41	0.2
Year Totals	..	..	..	..	24.71	163	.. ..	.. ..	.. ..	4.3
Year Averages	9.5	67	..	..	..	.	.. ..	.. ..	.. ..	..
Year Extremes	..	..	91	42	..	..	10.05 3/1946	0.07 4/1904	6.15 15/9/57	..

(*a*) 1922–1968. (*b*) 1915 and 1958.

Figures such as 30/16, *12/99*, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

Rainfall and temperatures, various cities

Year Book No. 34, page 28, shows rainfall and temperature, and No. 38, page 42, temperature, for various important cities throughout the world and for the Australian capitals.

Climatological data for selected Australian country towns

The following table shows some of the more important climatological data for selected Australian country towns, based on standard thirty years normals (1911–1940).

CLIMATOLOGICAL DATA FOR SELECTED AUSTRALIAN COUNTRY TOWNS

	Rainfall		*Temperature*				*Relative humidity*			
Town	*Average annual rainfall (inches)*	*Average number of wet days*	*Mean maximum, January (°F.)*	*Mean maximum, July (°F.)*	*Mean minimum, January (°F.)*	*Mean minimum, July (°F.)*	*Average index of mean relative humidity(a), January*	*Average index of mean relative humidity(a), July*	*Mean 3p.m., January (%)*	*Mean 3p.m., July (%)*
				WESTERN AUSTRALIA						
Albany . .	39.67	172	73.8	60.9	58.5	46.3	73	76	65	70
Broome . .	22.87	38	91.3	81.8	79.2	57.0	75	52	67	43
Bunbury . .	33.22	125	82.1	62.5	59.1	47.1	66	78	57	71
Carnarvon. .	9.01	35	87.2	71.7	72.1	51.6	64	66	61	57
Esperance . .	26.73	124	76.6	62.1	59.9	45.4	70	77	63	65
Geraldton . .	18.58	80	84.5	67.7	66.3	51.7	61	68	60	60
Kalgoorlie. .	9.46	62	93.2	62.5	64.2	42.9	43	66	27	50
Meekatharra .	9.17	36	100.4	67.5	73.1	44.0	31	59	21	44
Narrogin . .	21.38	108	87.3	57.9	56.3	41.3	..	..	..	..
Port Hedland .	11.01	20	94.3	79.3	79.4	55.6	67	49	63	47
Wyndham . .	25.15	55	95.9	85.0	80.2	66.2	66	38	54	35
				NORTHERN TERRITORY						
Alice Springs .	9.93	31	95.3	66.9	69.8	38.9	33	49	26	32
Tennant Creek .	13.85	30	98.5	75.4	75.9	51.1	41	36	27	25
				SOUTH AUSTRALIA						
Ceduna . .	10.50	68	81.5	62.6	58.8	43.8	..	..	..	..
Mount Gambier.	26.86	192	74.2	56.2	53.5	42.4	65	79	50	69
Oodnadatta .	4.44	20	99.0	66.4	72.1	42.7	27	49	17	34
Port Augusta .	9.28	62	89.5	62.8	65.3	43.9	50	66	33	52
Port Lincoln .	18.24	119	77.4	60.2	58.5	46.4	64	76	53	70
Port Pirie . .	12.99	78	89.2	61.7	62.6	45.4	51	72	..	..
				QUEENSLAND						
Atherton . .	53.99	116	83.8	70.9	65.0	50.0	78	79	..	..
Bundaberg .	42.37	84	86.1	71.6	69.7	49.2	74	72	63	55
Cairns . .	86.35	140	89.7	78.1	74.2	61.0	77	74	69	63
Charleville. .	17.97	49	97.6	68.3	70.8	40.1	44	61	28	39
Charters Towers.	23.26	59	92.9	76.0	71.3	51.6	65	64	46	47
Cloncurry . .	16.89	35	98.7	76.4	76.5	51.5	40	40	30	27
Ipswich . .	28.97	76	90.4	70.0	67.8	43.8	65	65	..	..
Longreach. .	15.54	37	99.6	73.2	73.3	44.3	49	56	29	35
Mackay . .	63.16	116	86.2	71.0	73.6	53.4	80	77	..	..
Maryborough .	45.43	122	87.9	71.5	68.8	47.6	73	74	..	..
Normanton .	37.56	56	94.3	84.0	77.0	58.6	70	48	52	34
Rockhampton .	37.36	93	90.0	73.7	72.3	51.2	68	65	55	45
Roma . .	20.43	52	94.4	67.4	68.3	39.3	51	64	32	40
Toowoomba .	35.19	105	82.7	61.1	61.2	40.7	73	79	..	..
Townsville. .	43.06	75	87.3	76.0	76.2	59.8	75	64	69	59

For footnotes *see* next page.

CLIMATOLOGICAL DATA FOR SELECTED AUSTRALIAN COUNTRY TOWNS—*continued*

	Rainfall		*Temperature*				*Relative humidity*			
Town	*Average annual rainfall (inches)*	*Average number of wet days*	*Mean maximum, January (°F.)*	*Mean maximum, July (°F.)*	*Mean minimum, January (°F.)*	*Mean minimum, July (°F.)*	*Average index of mean relative humidity(a), January*	*Average index of mean relative humidity(a), July*	*Mean 3p.m., January (%)*	*Mean 3p.m., July (%)*
				NEW SOUTH WALES						
Albury	27.66	99	89.9	56.4	59.8	38.2	47	74	29	64
Armidale	28.98	107	80.8	54.0	56.5	33.8	60	61	44	57
Bega	35.92	80	81.2	62.9	57.3	34.5	72	70	..	..
Bourke	11.74	44	98.0	63.8	69.3	40.8	37	64	24	48
Broken Hill	9.20	46	90.5	59.5	64.5	41.2	36	67	24	49
Cooma	18.85	88	78.8	50.4	52.2	30.2	55	67	38	56
Dubbo	20.91	72	92.1	59.7	63.8	37.5	48	74	32	56
Goulburn	24.27	112	81.5	52.4	56.2	35.8	59	74	43	67
Grafton	34.68	105	89.1	70.6	67.2	43.9	..	..	..	..
Katoomba	53.17	126	73.9	48.4	54.6	36.7	61	71	54	68
Leeton	15.76	78	88.9	56.8	63.2	38.9	44	76	..	..
Moree	21.43	56	96.0	64.8	67.4	39.0	..	..	..	..
Newcastle	41.36	132	77.7	61.4	66.6	47.7	74	70	69	61
Orange	31.52	95	83.9	51.6	53.7	31.4	..	..	..	..
Tamworth	24.41	67	91.0	60.4	63.4	36.8	..	..	..	..
Taree	47.48	110	83.9	64.5	62.0	42.7	..	..	..	..
Wagga	21.42	86	89.8	57.1	61.5	37.8	50	77	31	65
Wollongong	44.04	112	78.4	61.7	62.6	47.1	78	71	..	..
				VICTORIA						
Ballarat	27.38	170	75.7	49.8	50.5	38.4	60	81	41	75
Bendigo	20.27	111	83.0	54.2	56.5	39.4	47	75	30	64
Geelong	21.32	133	76.2	56.5	55.4	42.0	65	81	52	70
Horsham	17.57	104	85.1	56.0	55.2	38.8	50	77	33	67
Mildura	10.37	61	89.8	59.5	61.0	40.5	48	71	..	..
Sale	23.70	128	77.5	56.8	54.4	38.6	65	79	51	68
Seymour	22.17	94	84.7	55.2	54.6	37.4	56	79	..	..
Shepparton	19.94	103	86.3	55.7	58.8	39.3	49	77	32	63
Wangaratta	25.57	104	86.7	55.2	58.5	38.1	41	75	26	66
Warrnambool	25.79	153	69.9	55.6	54.7	43.6	73	83	69	77
				TASMANIA						
Burnie	38.99	170	67.6	53.7	51.9	41.7	70	82	65	74
Launceston	28.56	149	75.8	53.7	52.1	36.9	60	77	..	..
Zeehan	94.06	246	66.3	51.6	48.0	38.2	73	81	61	74

(*a*) The average index of mean relative humidity has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the average mean temperature of the month. Being thus related to the mean temperature this value of relative humidity is a good approximation to the daily mean.

The table on the next page gives the latitude, longitude, and altitude of the weather recording station at each of the above towns.

LOCATION CO-ORDINATES FOR SELECTED AUSTRALIAN COUNTRY TOWNS

Station	*Lat.*	*Long.*	*Altitude (ft)*
Western Australia—			
Albany	34° 57′	117° 48′	226
Broome	17° 57′	122° 13′	39
Bunbury	33° 19′	115° 38′	3
Carnarvon	24° 53′	113° 39′	12
Esperance	33° 51′	121° 53′	14
Geraldton	28° 48′	114° 42′	92
Kalgoorlie	30° 46′	121° 27′	1,180
Meekatharra	26° 36′	118° 29′	1,697
Narrogin	32° 54′	117° 09′	1,150
Port Hedland	20° 23′	118° 37′	20
Wyndham	15° 31′	128° 09′	20
Northern Territory—			
Alice Springs	23° 48′	133° 53′	1,790
Tennant Creek	19° 38′	134° 11′	1,229
South Australia—			
Ceduna	32° 08′	133° 42′	57
Mount Gambier	37° 45′	140° 47′	206
Oodnadatta	27° 33′	135° 29′	371
Port Augusta	32° 33′	137° 47′	14
Port Lincoln	34° 47′	135° 53′	13
Port Pirie	33° 11′	138° 01′	10
Queensland—			
Atherton	17° 17′	145° 27′	2,466
Bundaberg	24° 52′	152° 21′	6
Cairns	16° 35′	145° 44′	10
Charleville	26° 25′	146° 17′	950
Charters Towers	20° 03′	146° 08′	1,004
Cloncurry	20° 40′	140° 30′	621
Ipswich	27° 38′	152° 44′	64
Longreach	23° 26′	144° 15′	612
Mackay	21° 07′	149° 10′	9
Maryborough	25° 32′	152° 42′	20
Normanton	17° 39′	141° 05′	34
Rockhampton	23° 23′	150° 29′	26
Roma	26° 36′	148° 42′	1,000
Queensland—*contd*			
Toowoomba	27° 33′	151° 57′	1,921
Townsville	19° 15′	146° 46′	10
New South Wales—			
Albury	36° 06′	146° 54′	600
Armidale	30° 32′	151° 38′	3,215
Bega	36° 40′	149° 50′	50
Bourke	30° 05′	145° 58′	350
Broken Hill	31° 57′	141° 28′	978
Cooma	36° 13′	149° 08′	2,749
Dubbo	32° 10′	148° 37′	861
Goulburn	34° 45′	149° 43′	2,074
Grafton	29° 41′	152° 56′	21
Katoomba	33° 43′	150° 19′	3,280
Leeton	34° 33′	146° 24′	496
Moree	29° 28′	149° 51′	680
Newcastle	32° 55′	151° 49′	122
Orange	33° 18′	149° 06′	2,850
Tamworth	31° 05′	150° 56′	1,279
Taree	31° 54′	152° 28′	30
Wagga	35° 08′	147° 25′	719
Wollongong	34° 25′	150° 56′	150
Victoria—			
Ballarat	37° 35′	143° 50′	1,433
Bendigo	36° 46′	144° 17′	730
Geelong	38° 07′	144° 22′	57
Horsham	36° 40′	142° 12′	437
Mildura	34° 14′	142° 05′	156
Sale	38° 06′	147° 08′	15
Seymour	37° 02′	145° 08′	464
Shepparton	36° 23′	145° 24′	372
Wangaratta	36° 22′	146° 19′	493
Warrnambool	38° 24′	142° 29′	33
Tasmania—			
Burnie	41° 04′	145° 54′	13
Launceston	41° 33′	147° 13′	546
Zeehan	41° 54′	145° 23′	592

The weather of 1969 (December 1968 to November 1969)

The following is a brief summary of weather experiences during the four seasons ended in November 1969. Plate 3, page 31, shows the rainfall distribution for 1969.

Summer, 1968–69. Apart from Queensland, rainfall in Australia was generally good during this season although the south-west of Western Australia was below average. Practically the whole of Queensland received below normal rainfall for the summer season with substantial areas recording only 30 per cent, or less of their normal rainfall. As a result of the failure of the 1968–69 wet season, Queensland and part of northern New South Wales at the end of summer were suffering from a serious rainfall deficiency and most of inland Queensland was drought stricken.

Bush and grass fires occurred throughout Australia and in Victoria seventeen people died as a result of the Lara fires on 8 January 1969.

Autumn, 1969. The wet season, which was good in the Northern Territory, and the Kimberleys, ended early in April. In inland Queensland, other than the south, a dry autumn followed a dry summer and stock were moved from the drought areas into New South Wales for agistment. In the southern inland regions of Queensland the drought was alleviated by good rains in March and May, the latter extended into the south-eastern corner of the State and greatly improved the prospects for winter. In most other areas of Australia, autumn rains were satisfactory or better in amount, with flooding at the end of the season in what were recently drought areas of eastern Victoria and Tasmania. The rains in March, of record or near record amounts, in north-western Victoria caused severe losses in the dried fruits area around Mildura.

Agriculturally and pastorally, Australia, other than Queensland, moved into winter with conditions ranging from good to excellent.

Winter, 1969. Severe drought continued in most of Queensland, extending from the Northern Territory border to the central coast. Winter rainfall in Queensland was 50 to 80 per cent below normal in most districts. In Western Australia, low winter rainfall in the agricultural districts seriously threatened the wheat crop. Rain was urgently needed in most areas of the wheatbelt. Over the remainder of the continent, winter rainfall ranged from average to much above average in parts of eastern New South Wales and the north-east of South Australia.

Winter temperatures were about average or slightly above. Although there were some frosts, particularly in southern New South Wales, conditions were most mild, notably in South Australia, Victoria and Tasmania.

Spring, 1969. Spring rainfall was generally below average over the continent, the chief exceptions being eastern New South Wales and south-east Queensland.

In Queensland drought continued to increase in severity over about two thirds of the State and widespread heavy rains are required to overcome the deficiency which has been building up over about 15–17 months. Conditions also deteriorated in the drought stricken south-west coastal and agricultural districts of Western Australia.

In south-east Queensland and eastern New South Wales rainfall was very much above average and some areas experienced their heaviest spring falls since 1950.

Spring temperatures were mostly about average except in New South Wales where they were significantly below average and in Western Australia where temperatures were generally above average.

CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under section 1 of the Commonwealth of Australia Constitution the legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor who is the representative of the Sovereign for the State and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office and by the instructions which detail the manner in which his duties are to be fulfilled. The Legislature in each State was bicameral until 1922, when the Queensland Upper House was abolished and the Parliament became unicameral. In the bicameral Parliaments the Upper House is known in the Commonwealth Parliament as the Senate, and in the State Parliaments as the Legislative Council, while the Lower House is known in the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria, and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. In Queensland the sole legislative chamber is known as the Legislative Assembly. The extent of the legislative powers of the Parliaments is defined by the Commonwealth and State Constitutions. In those States that have a bicameral legislature the Legislative Assembly or House of Assembly is the larger House. The members of the Legislative Assembly or House of Assembly, as the case may be, of each State are elected by the people, the franchise extending to adult British subjects with certain residential qualifications. With the exception of the New South Wales Legislative Council, the members of State Legislative Councils are, in common with members of the Lower Houses, elected by the people of the respective States. In New South Wales a quarter of the members of the Legislative Council retire each three years, and the continuing members of the Council and the members of the Legislative Assembly, voting as an electoral body, elect members to fill the vacant positions. In Victoria, Western Australia and Tasmania members of the Legislative Council are elected by adult suffrage, while the franchise is limited in South Australia to the holders of certain property or service qualifications and their spouses. In the Commonwealth Parliament the qualifications for the franchise are identical for both Houses, extending to adult British subjects who have lived in Australia for six months continuously.

The Sovereign

On 7 February 1952 the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2 June 1953.

The Governor-General

Powers and functions. As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen. Other powers and functions are conferred on him by the Constitution. Powers which have been so assigned or conferred include, among others, the power to grant pardons and to remit fines for offences against the laws of the Commonwealth; to appoint certain officers in the Diplomatic or Consular Service of the Commonwealth; to appoint times for holding the sessions of the Parliament, prorogue Parliament, and dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament or withhold assent, or to reserve the law for the Queen's pleasure, or to return the proposed law to the House in which it originated and transmit therewith any amendments which he may recommend; to exercise the executive power of the Commonwealth; to choose and summon Executive Councillors, who hold office during his pleasure; and to appoint Ministers of State for the Commonwealth. In addition, the command-in-chief of the defence forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

Many Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the Act. The Governor-General may also be authorised by statute to issue proclamations—for example, to declare an Act in force or a state of things to exist, e.g. the calling out of the Citizen Military Forces in time of war or defence emergency. He has been given power by statute to legislate for certain Territories of the Commonwealth. Under the conventions of responsible government obtaining in British Commonwealth countries, the Governor-General's functions are exercised generally on the advice of Ministers of State.

Holders of office. The following list shows the names of the Governors-General since the inception of the Commonwealth.

GOVERNORS-GENERAL

Rt Hon. JOHN ADRIAN LOUIS, EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), P.C., K.T., G.C.M.G., G.C.V.O. From 1 January 1901 to 9 January 1903.

Rt Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 17 July 1902 to 9 January 1903 (Acting).

Rt Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 9 January 1903 to 21 January 1904.

Rt Hon. HENRY STAFFORD, BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. From 21 January 1904 to 9 September 1908.

Rt Hon. WILLIAM HUMBLE, EARL OF DUDLEY, P.C., G.C.B., G.C.M.G., G.C.V.O. From 9 September 1908 to 31 July 1911.

Rt Hon. THOMAS, BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31 July 1911 to 18 May 1914.

Rt Hon. SIR RONALD CRAUFURD MUNRO–FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18 May 1914 to 6 October 1920.

Rt Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6 October 1920 to 8 October 1925.

Rt Hon. JOHN LAWRENCE, BARON STONEHAVEN (afterwards 1ST VISCOUNT STONEHAVEN), P.C., G.C.M.G., D.S.O. From 8 October 1925 to 22 January 1931.

Rt Hon. SIR ISAAC ALFRED ISAACS, G.C.B., G.C.M.G., K.C. From 22 January 1931 to 23 January 1936.

Brigadier-General the Rt Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE (afterwards 1ST EARL OF GOWRIE), V.C., P.C., G.C.M.G., C.B., D.S.O., K.G.ST.J. From 23 January 1936 to 30 January 1945.

His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., P.C., K.T., K.P., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30 January 1945 to 11 March 1947.

Rt Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G., Q.C. From 11 March 1947 to 8 May 1953.

Field Marshal SIR WILLIAM JOSEPH SLIM (afterwards VISCOUNT SLIM OF YARRALUMLA), K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.ST.J. From 8 May 1953 to 2 February 1960

Rt Hon. WILLIAM SHEPHERD, VISCOUNT DUNROSSIL, P.C., G.C.M.G., M.C., K.ST.J., Q.C. From 2 February 1960 to 3 February 1961.

Rt Hon. WILLIAM PHILIP, VISCOUNT DE LISLE, V.C., P.C., G.C.M.G., G.C.V.O., K.ST.J. From 3 August 1961 to 22 September 1965.

Rt Hon. RICHARD GARDINER, BARON CASEY, K.G., P.C., G.C.M.G., C.H., D.S.O., M.C., K.ST.J. From 22 September 1965 to 30 April 1969.

Rt Hon. Sir PAUL HASLUCK, G.C.M.G. K.ST.J., From 30 April 1969.

Administrators. In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator of the Government of the Commonwealth. Administrators are appointed in the event of the death, illness, or absence from Australia of the Governor-General, or for the period between the departure of a Governor-General and the arrival of his successor. The following is a list of such appointments.

ADMINISTRATORS

Rt Hon. FREDERIC JOHN NAPIER, BARON CHELMSFORD (afterwoods 1ST VISCOUNT CHELMSFORD), K.C.M.G. From 21 December 1909 to 27 January 1910.

Lieut.-Colonel the Rt Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3 October 1930 to 22 January 1931.

Captain the Rt Hon. WILLIAM CHARLES ARCEDECKNE, BARON HUNTINGFIELD, K.C.M.G., K.ST.J. From 29 March 1938 to 24 September 1938.

Major-General SIR WINSTON JOSEPH DUGAN (afterwards 1ST BARON DUGAN OF VICTORIA), G.C.M.G., C.B., D.S.O. From 5 September 1944 to 30 January 1945; 19 January 1947 to 11 March 1947.

General* SIR JOHN NORTHCOTT, K.C.M.G., K.C.V.O., C.B., From 19 July 1951 to 14 December 1951; 30 July 1956 to 22 October 1956.

General SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., K.C.M.G.†, K.C.V.O., D.S.O., K.ST.J. From 8 January 1959 to 16 January 1959; 4 February 1961 to 3 August 1961; 5 June 1962 to 3 October 1962; 21 November 1962 to 18 December 1962.

General SIR ERIC WINSLOW WOODWARD, K.C.M.G., K.C.V.O., C.B., C.B.E., D.S.O., K.ST.J. From 16 June 1964 to 30 August 1964.

Colonel SIR HENRY ABEL SMITH, K.C.M.G., K.C.V.O., D.S.O., K.ST.J. From 7 May 1965 to 22 September 1965.

Lieut.-General SIR EDRIC MONTAGUE BASTYAN, K.C.M.G., K.C.V.O., K.B.E., C.B. From 24 April 1967 to 1 June 1967.

Governors of the States

Powers and functions. The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the Governor's Instructions given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions by State Constitutions and other Imperial Acts and by Acts of the Parliaments of the States.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown. In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

Holders of office. The names of the present (January 1970) State Governors are as follows:

STATE GOVERNORS, JANUARY 1970

New South Wales—SIR ARTHUR RODEN CUTLER, V.C., K.C.M.G., C.B.E., K.ST.J.

Victoria—MAJOR-GENERAL SIR ROHAN DELACOMBE, K.C.M.G., K.B.E., C.B., D.S.O., K.ST.J.

Queensland—SIR ALAN JAMES MANSFIELD, K.C.M.G.

South Australia—MAJOR-GENERAL SIR JAMES WILLIAM HARRISON, K.C.M.G., C.B., C.B.E.

Western Australia—MAJOR-GENERAL SIR DOUGLAS ANTHONY KENDREW, K.C.M.G., C.B., C.B.E., D.S.O.

Tasmania—LIEUT.-GENERAL SIR EDRIC MONTAGUE BASTYAN, K.C.M.G., K.C.V.O., K.B.E., C.B.

The Cabinet and executive government

Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th Century, and which is generally known as 'Cabinet' or 'responsible' government. Its essence is that the head of the State (Her Majesty the Queen, and her representative, the Governor-General or Governor) should perform governmental acts on the advice of her Ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the lower House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

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* Lieutenant-General Sir John Northcott was granted honorary rank of General while administering the Government of the Commonwealth. † G.C.M.G., 1963.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The Constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

The Cabinet. This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia until January 1956 all Ministers were members of the Cabinet. Since then, however, although in the States all Ministers are members of the Cabinet, the Commonwealth ministry is made up of thirteen senior Ministers, who constitute the Cabinet, and other Ministers* of non-Cabinet rank who attend meetings of the Cabinet only when required, as, for example, when the business of the Cabinet concerns their departments. As Ministers are the leaders of the party or parties commanding a majority in the lower House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing, or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

The Executive Council. This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The Meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of the Cabinet are, where necessary, given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

The appointment of Ministers. Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the Lower House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

Ministers in Upper and Lower Houses. The following table shows the distribution of Ministers in the Houses of each Parliament in January 1970.

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES JANUARY 1970

Ministers with seats in—	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
The Upper House .	5	2	4	(*a*)	3	3	. .	17
The Lower House .	21	16	11	14	6	9	9	86
Total . .	**26**	**18**	**15**	**14**	**9**	**12**	**9**	**103**

(*a*) Abolished in 1922.

* Thirteen from 12 November 1969.

Commonwealth Ministries

Names and tenure of office, 1901 *to* 1969. The following list shows the name of each Commonwealth Ministry to hold office since 1 January 1901, and the limits of its term of office.

COMMONWEALTH MINISTRIES, 1901 TO JANUARY 1970

(i) BARTON MINISTRY, 1 January 1901 to 24 September 1903.
(ii) DEAKIN MINISTRY, 24 September 1903 to 27 April 1904.
(iii) WATSON MINISTRY, 27 April 1904 to 18 August 1904.
(iv) REID-MCLEAN MINISTRY, 18 August 1904 to 5 July 1905.
(v) DEAKIN MINISTRY, 5 July 1905 to 13 November 1908.
(vi) FISHER MINISTRY, 13 November 1908 to 2 June 1909
(vii) DEAKIN MINISTRY, 2 June 1909 to 29 April 1910.
(viii) FISHER MINISTRY, 29 April 1910 to 24 June 1913.
(ix) COOK MINISTRY, 24 June 1913 to 17 September 1914.
(x) FISHER MINISTRY, 17 September 1914 to 27 October 1915.
(xi) HUGHES MINISTRY, 27 October 1915 to 14 November 1916.
(xii) HUGHES MINISTRY, 14 November 1916 to 17 February 1917.
(xiii) HUGHES MINISTRY, 17 February 1917 to 10 January 1918.
(xiv) HUGHES MINISTRY, 10 January 1918 to 9 February 1923.
(xv) BRUCE-PAGE MINISTRY, 9 February 1923 to 22 October 1929.
(xvi) SCULLIN MINISTRY, 22 October 1929 to 6 January 1932.
(xvii) LYONS MINISTRY, 6 January 1932 to 7 November 1938.
(xviii) LYONS MINISTRY, 7 November 1938 to 7 April 1939.
(xix) PAGE MINISTRY, 7 April 1939 to 26 April 1939.
(xx) MENZIES MINISTRY, 26 April 1939 to 14 March 1940
(xxi) MENZIES MINISTRY, 14 March 1940 to 28 October 1940.
(xxii) MENZIES MINISTRY, 28 October 1940 to 29 August 1941.
(xxiii) FADDEN MINISTRY, 29 August 1941 to 7 October 1941.
(xxiv) CURTIN MINISTRY, 7 October 1941 to 21 September 1943.
(xxv) CURTIN MINISTRY, 21 September 1943 to 6 July 1945.
(xxvi) FORDE MINISTRY, 6 July 1945 to 13 July 1945.
(xxvii) CHIFLEY MINISTRY, 13 July 1945 to 1 November 1946.
(xxviii) CHIFLEY MINISTRY, 1 November 1946 to 19 December 1949.
(xxix) MENZIES MINISTRY, 19 December 1949 to 11 May 1951.
(xxx) MENZIES MINISTRY, 11 May 1951 to 11 January 1956.
(xxxi) MENZIES MINISTRY, 11 January 1956 to 10 December 1958.
(xxxii) MENZIES MINISTRY, 10 December 1958 to 18 December 1963.
(xxxiii) MENZIES MINISTRY, 18 December 1963 to 26 January 1966.
(xxxiv) HOLT MINISTRY, 26 January 1966 to 14 December 1966.
(xxxv) HOLT MINISTRY, 14 December 1966 to 19 December 1967.
(xxxvi) MCEWEN MINISTRY, 19 December 1967 to 10 January 1968.
(xxxvii) GORTON MINISTRY, 10 January 1968 to 28 February 1968.
(xxxviii) GORTON MINISTRY, 28 February 1968 to 12 November 1969.
(xxxix) GORTON MINISTRY, 12 November 1969.

Names of members of each Ministry to 1 *January* 1970. In Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9 February 1923 to 22 October 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contains a list, commencing with the Bruce-Page Ministry, which covers the period between the date on which it assumed power, 9 February 1923, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period. The names of members of subsequent Ministries are listed in successive issues of the Year Book after No. 39.

This issue shows only particulars of the third Gorton Ministry.

GORTON MINISTRY—FROM 12 NOVEMBER 1969

(The State in which each Minister's electorate is situated and party affiliation are shown in parenthesis. Party affiliation is indicated by the use of the following abbreviations: C.P.—Australian Country Party, Lib.—Liberal Party of Australia.)

*_Prime Minister—_
The Rt Hon. J. G. Gorton, M.P. (Vic.) (Lib.)

*_Deputy Prime Minister and Minister for Trade and Industry—_
The Rt Hon. J. McEwen, C.H., M.P. (Vic.) (C.P.)

*_Minister for External Affairs—_
The Rt Hon. W. Mc Mahon, M.P. (N.S.W.) (Lib.)

*_Minister for Primary Industry—_
The Hon. J. D. Anthony, M.P. (N.S.W.) (C.P.)

*_Postmaster-General and Vice-President of the Executive Council—_
The Hon. A. S. Hulme, M.P. (Qld) (Lib.)

*_Treasurer—_
The Hon. L. H. E. Bury, M.P. (N.S.W.) (Lib.)

*_Minister for Shipping and Transport and Assisting the Minister for Trade and Industry—_
The Hon. Ian Sinclair, M.P. (N.S.W.) (C.P.)

*_Minister for Supply and Leader of the Government in the Senate—_
Senator the Hon. Ken Anderson (N.S.W.) (Lib.)

*_Minister for Defence—_
The Hon. Malcolm Fraser, M.P. (Vic.) (Lib.)

*_Minister for National Development—_
The Hon. R. W. C. Swartz, M.B.E., E.D., M.P. (Qld) (Lib.)

*_Minister for Labour and National Service and Leader of the House—_
The Hon. B. M. Snedden, Q.C., M.P. (Vic.) (Lib.)

*_Minister for Education and Science—_
The Hon. N. H. Bowen, Q.C., M.P. (N.S.W.) (Lib.)

*_Minister for the Interior—_
The Hon. P. J. Nixon, M.P. (Vic.) (C.P.)

Minister for External Territories—
The Hon. C. E. Barnes, M.P. (Qld) (C.p.)

Minister for Health—
The Hon. A. J. Forbes, M.C., M.P. (S.A.) (Lib.)

Minister for Housing—
Senator the Hon. Dame Annabelle Rankin, D.B.E. (Qld) (Lib.)

Minister for Immigration and Assisting the Treasurer—
The Hon. Phillip Lynch M.P. (Vic.) (Lib.)

Minister for Social Services and under the Prime Minister, Minister-in-Charge of Aboriginal Affairs—
The Hon. W. C. Wentworth, M.P. (N.S.W.) (Lib.)

Minister for Works and under the Minister for Trade and Industry, Minister-in-Charge of Tourist Activities—
Senator the Hon. R. C. Wright (Tas.) (Lib.)

Minister for Civil Aviation—
Senator the Hon. R. C. Cotton (N.S.W.) (Lib.)

Minister for Customs and Excise—
The Hon. D. L. Chipp, M.P. (Vic.) (Lib.)

Minister for Air—
Senator the Hon. T. C. Drake-Brockman, D.F.C. (W.A.) (C.P.)

Attorney-General—
The Hon. T. E. F. Hughes, Q.C., M.P. (N.S.W.) (Lib.)

Minister for Repatriation—
The Hon. R. McN. Holten, M.P. (Vic.) (C.P.)

Minister for the Army and Minister Assisting the Prime Minister—
The Hon. A. S. Peacock M.P. (Vic.) (Lib.)

Minister for the Navy—
The Hon. D. J. Killen M.P. (Qld) (Lib.)

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* Minister in the Cabinet.

Names of Ministers of State. Year Book No. 38 contains a statement listing the Commonwealth Departments in existence during the period 1 April 1925 to 31 December 1949 and the names of the Ministers of State who had administered them (pages 74–9). This is in continuation of a similar statement covering the period from the inauguration of the Commonwealth Government to 1925 which appears in Year Book No. 18.

State Ministries, January, 1970

The names of the members of the Ministries in each State in December 1969 are shown in the following statement. For subsequent changes, *see* Appendix. Party affiliation is indicated in parenthesis after each name. For full party titles *see* page 76.

STATE MINISTRIES, JANUARY 1970

NEW SOUTH WALES

Premier and Treasurer—
The Hon. R. W. Askin, M.L.A. (Lib.)

Deputy Premier, Minister for Education, and Minister for Science—
The Hon. C. B. Cutler, E. D., M.L.A. (C.P.)

Minister for Labour and Industry, Chief Secretary, and Minister for Tourism—
The Hon. E. A. Willis, M.L.A. (Lib.)

Minister for Decentralisation and Development, and Vice-President of the Executive Council—
The Hon. J. B. M. Fuller, M.L.C. (C.P.)

Minister for Public Works—
The Hon. Davis Hughes, M.L.A. (C.P.)

Attorney-General—
The Hon. K. M. McCaw, M.L.A. (Lib.)

Minister for Local Government and Minister for Highways—
The Hon. P. H. Morton, M.L.A. (Lib.)

Minister for Transport—
The Hon. M. A. Morris, M.L.A. (Lib.)

Minister for Lands—
The Hon. T. L. Lewis, M.L.A. (Lib.)

Minister for Conservation—
The Hon. J. G. Beale, M.L.A. (Lib.)

Minister for Agriculture—
The Hon. G. R. Crawford, D.C.M., M.L.A. (C.P.)

Minister for Housing and Minister for Co-operative Societies—
The Hon. S. T. Stephens, M.L.A. (C.P.)

Minister of Justice—
The Hon. J. C. Maddison, M.L.A. (Lib.)

Minister for Health—
The Hon. A. H. Jago, M.L.A. (Lib.)

Minister for Mines—
The Hon. W. C. Fife, M.L.A. (Lib.)

Minister for Child Welfare and Minister for Social Welfare—
The Hon. F. M. Hewitt, M.L.C. (Lib.)

Assistant Ministers—
The Hon. J. L. Waddy, O.B.E., D.F.C., M.L.A. (Lib.)
The Hon. G. F. Freudenstein, M.L.A. (C.P.)

VICTORIA

Premier and Treasurer—
The Hon. Sir Henry Bolte, K.C.M.G., M.P. (Lib.)

Chief Secretary—
The Hon. Sir Arthur Rylah, K.B.E., C.M.G., E.D., M.P. (Lib.)

Minister of Agriculture—
The Hon. G. L. Chandler, C.M.G., M.L.C. (Lib.)

Minister of Education—
The Hon. L. H. S. Thompson, M.L.C. (Lib.)

Attorney-General, and Minister of Immigration—
The Hon. G. O. Reid, M.P. (Lib.)

Minister of Public Works—
The Hon. M. V. Porter, M.P. (Lib.)

Minister of Housing, Minister of Forests, and Minister for Aboriginal Affairs—
The Hon. E. R. Meagher, M.B.E., E.D., M.P. (Lib.)

Minister for Local Government—
The Hon. R. J. Hamer, E.D., M.L.C. (Lib.)

Minister for Fuel and Power, and Minister of Mines—
The Hon. J. C. M. Balfour, M.P. (Lib.)

Minister for Labour and Industry—
The Hon. J. F. Rossiter, M.P. (Lib.)

Minister of Transport—
The Hon. V. F. Wilcox, M.P. (Lib.)

Minister of Health—
The Hon. V. O. Dickie, M.L.C. (Lib.)

Minister of State Development—
The Hon. J. W. Manson, M.P. (Lib.)

Minister of Lands, Minister of Soldier Settlement, and Minister for Conservation—
The Hon. Sir William McDonald, M.P. (Lib.)

Minister of Water Supply—
The Hon. W. A. Borthwick, M.P. (Lib.)

STATE MINISTRIES, JANUARY 1970—*continued*

QUEENSLAND

Premier and Minister for State Development—
THE HON. J. BJELKE-PETERSEN, M.L.A. (C.P.)

Treasurer—
THE HON. G. W. W. CHALK, M.L.A. (Lib.)

Minister for Mines and Main Roads—
THE HON. R. E. CAMM, M.L.A. (C.P.)

Minister for Justice and Attorney-General—
THE HON. P. R. DELAMOTHE, O.B.E., M.L.A. (Lib.)

Minister for Education and Cultural Activities—
THE HON. A. R. FLETCHER, M.L.A. (C.P.)

Minister for Primary Industries—
THE HON. J. A. ROW, M.L.A. (C.P.)

Minister for Health—
THE HON. S. D. TOOTH, M.L.A. (Lib.)

Minister for Labour and Tourism—
THE HON. J. D. HERBERT, M.L.A. (Lib.)

Minister for Transport—
THE HON. W. E. KNOX, M.L.A. (Lib.)

Minister for Industrial Development—
THE HON. F. A. CAMPBELL, M.L.A. (Lib.)

Minister for Lands—
THE HON. V. B. SULLIVAN, M.L.A. (C.P.)

Minister for Works and Housing—
THE HON. A. M. HODGES, M.L.A. (C.P.)

Minister for Conservation, Marine and Aboriginal Affairs—
THE HON. N. T. E. HEWITT, M.L.A. (C.P.)

Minister for Local Government and Electricity—
THE HON. W. A. R. RAE, M.L.A. (C.P.)

SOUTH AUSTRALIA

Premier and Minister of Industrial Development—
THE HON. R. S. HALL, M.P. (L.C.L.)

Chief Secretary, Minister of Health and Minister of Mines—
THE HON. R. C. DEGARIS, M.L.C. (L.C.L.)

Treasurer and Minister for Housing—
THE HON. G. G. PEARSON, M.P. (L.C.L.)

Minister of Lands, Minister of Repatriation, Minister of Irrigation and Minister of Immigration and Tourism—
THE HON. D. N. BROOKMAN, M.P. (L.C.L.)

Minister of Agriculture and Minister of Forests—
THE HON. C. R. STORY, M.L.C. (L.C.L.)

Minister of Works, Minister of Marine and Minister of Labour and Industry—
THE HON. J. W. H. COUMBE, M.P. (L.C.L.)

Attorney-General, Minister of Social Welfare and Minister of Aboriginal Affairs—
THE HON. R. R. MILLHOUSE, M.P. (L.C.L.)

Minister of Education—
THE HON. JOYCE STEELE, M.P. (L.C.L.)

Minister of Local Government and Minister of Roads and Transport—
THE HON. C. M. HILL (L.C.L.)

WESTERN AUSTRALIA

Premier, Treasurer, and Minister for Tourists—
THE HON. SIR DAVID BRAND, K.C.M.G., M.L.A. (Lib.)

Deputy Premier, Minister for Agriculture, and Minister for Electricity—
THE HON. C. D. NALDER, M.L.A. (C.P.)

Minister for Industrial Development and Minister for the North-West—
THE HON. C. W. M. COURT, O.B.E., M.L.A. (Lib.)

Minister for Education and Minister for Native Welfare—
THE HON. E. H. M. LEWIS, M.L.A. (C.P.)

Minister for Mines, Minister for Justice, and Leader of the Government in the Legislative Council—
THE HON. A. F. GRIFFITH, M.L.C. (Lib.)

Minister for Lands, Minister for Forests, and Minister for Immigration—
THE HON. W. S. BOVELL, M.L.A. (Lib.)

Minister for Works and Minister for Water Supplies
THE HON. R. HUTCHINSON, D.F.C., M.L.A. (Lib.)

Minister for Local Government, Minister for Town Planning, and Minister for Child Welfare—
THE HON. L. A. LOGAN, M.L.C. (C.P.)

Chief Secretary, Minister for Police, and Minister for Traffic—
THE HON. J. F. CRAIG, M.L.A. (C.P.)

Minister for Housing and Minister for Labour—
THE HON. D. H. O'NEIL, M.L.A. (Lib.)

Minister for Transport and Minister for Railways—
THE HON. R. J. O'CONNOR, M.L.A. (lib.)

Minister for Health, and Minister for Fisheries and Fauna—
THE HON. G. C. MACKINNON, M.L.C. (Lib.)

STATE MINISTRIES, 1969—*continued*

TASMANIA

Premier, Treasurer and Minister in Charge of Hydro-electric Commission—
THE HON. W. A. BETHUNE, M.H.A. (Lib.)

Deputy Premier, Chief Secretary and Minister for Tourists—
THE HON. K. O. LYONS, M.H.A. (A.C.P.)

Minister for Education—
THE HON. R. MATHER, M.H.A. (Lib.)

Minister for Agriculture and Forests—
THE HON. E. C. BEATTIE, M.H.A. (Lib.)

Attorney-General, Minister for Police and Licensing—
THE HON. E. M. BINGHAM, M.H.A. (Lib.)

Minister for Lands and Works and Local Government—
THE HON. W. G. BARKER, M.H.A. (Lib.)

Minister for Transport, Racing and Gaming and Mines—
THE HON. L. H. BESSELL, M.H.A. (Lib.)

Minister for Development, Housing and Fisheries—
THE HON. D. F. CLARK, M.H.A. (Lib.)

Minister for Health and Road Safety—
THE HON. N. D. ABBOTT, M.H.A. (Lib.)

Leaders of the Opposition, Commonwealth and State Parliaments, January 1970

The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in January 1970.

LEADERS OF THE OPPOSITION, JANUARY 1970

Commonwealth—E. G. Whitlam, Q.C., M.P. (A.L.P.)
New South Wales—P. D. Hills, M.L.A. (A.L.P.)
Victoria—A. C. Holding, M.P. (A.L.P.)
Queensland—J. W. Houston, M.L.A. (A.L.P.)
South Australia—The Hon. D. A. Dunstan, Q.C., M.P. (A.L.P.)
Western Australia—The Hon. J. T. Tonkin, M.L.A. (A.L.P.)
Tasmania—The Hon. E. E. Reece, M.H.A. (A.L.P.)

Numbers and salaries of Commonwealth Ministers

Under sections 65 and 66, respectively, of the Constitution of the Commonwealth the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000 ($24,000), each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently the number and salaries have been increased from time to time, and from December 1968 the annual sum payable for salaries has been fixed at $245,500 and the number of Ministers at twenty-six. An additional ministerial allowance of $10,300 a year has been payable to the Prime Minister since December 1968, and an additional ministerial allowance of $4,600 a year for senior Ministers and $4,000 a year for other Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* page 77).

Parliaments and elections

The Commonwealth Parliaments

The first Parliament of the Commonwealth was convened by proclamation dated 29 April 1901 by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9 May 1901 by H.R.H. the Duke of Cornwall and York. The Rt Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since federation.

COMMONWEALTH PARLIAMENTS

Number of Parliament	*Date of opening*	*Date of dissolution*
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	30 July 1914(*a*)
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	6 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	19 March 1951(*a*)
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	31 October 1966
Twenty-sixth	21 February 1967	29 September 1969
Twenty-seventh	25 November 1969	

(*a*) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under section 57 of the Constitution.

There have been twenty-six complete Parliaments since Federation. Until 1927 the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the Duke of York on 9 May 1927.

The twenty-sixth Parliament opened on 21 February 1967 and ended on 29 September 1969 when the House of Representatives was dissolved. Elections for the House of Representatives were held on 25 October 1969. Elections were also held on the same date to fill casual vacancies in the Senate for each of the States of Victoria, and South Australia. Particulars of electors and voting are given on page 72. For particulars of electors enrolled and of electors who voted in the several States and Territories at previous Commonwealth elections, *see* Year Book No. 55 and earlier issues.

A special article describing the Commonwealth Parliament, its functions and procedure, prepared by the Clerk of the Senate and the Clerk of the House of Representatives, appears in Year Book No. 49, pages 65–71.

Qualifications for membership and for franchise—Commonwealth Parliament

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age and not disentitled on other grounds, who has lived in Australia for six months continuously. Residence in a Subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to an Aboriginal native of Australia. A member of the Defence Force on service outside Australia who is a British subject not less than 21 years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections, whether enrolled or not. In 1966 the franchise was extended to entitle a person who is less than twenty-one years of age, who has lived in Australia for six months continuously and who is, or has been, on 'special service' outside Australia as a member of the Defence Force, to vote at elections as if his name appeared on the roll. 'Special service' takes the same meaning as that term in the Repatriation (Special Overseas Service) Act and means, in relation to a person, service during a period when he is outside Australia and he or his unit is allotted for special duty in a special area.

The principal reasons for disqualification of persons otherwise eligible as members of either Commonwealth House are: membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding an office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than twenty-five persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or persons who are holders of temporary entry permits under the *Migration Act* 1958-1966 or are prohibited immigrants under that Act are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise. Aborigines are entitled to vote at both Commonwealth and State elections in all States.

Commonwealth Parliaments and elections

From the establishment of the Commonwealth until 1949 the Senate consisted of thirty-six members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament, and, as the population of the Commonwealth had more than doubled since its inception, the Parliament passed the *Representation Act* 1948 which provided that there should be ten Senators from each State instead of six, increasing the total to sixty Senators, thus enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation.

In accordance with the Constitution the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate.* Consequently, in terms of the Constitution and the Representation Act, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows: New South Wales—from 28 to 47; Victoria—from 20 to 33; Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 and the total was increased from 74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. Redistributions are carried out by distribution commissioners appointed for each State. The redistributions are effected on a quota basis, but taking into account community interests, means of communication, physical features, existing boundaries, and other factors.

The population as disclosed by the Census taken on 30 June 1954 necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10 December 1955 had been: New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122.

The population as disclosed by the Census taken on 30 June 1961 revealed that, under the provisions of the Representation Act, New South Wales, Queensland, and Western Australia would each lose one member in the House of Representatives, while Victoria would gain a member. The distribution commissioners' reports were duly laid before both Houses of Parliament, but the Government decided not to proceed with the proposals and announced that it would amend the Representation Act. In November 1964 the formula provided by Section 10 of the Representation Act for determining the number of members of the House of Representatives was amended so as to give a State an additional member for 'any portion of a quota'. The effect of that amendment would have been that at the next redistribution Victoria and South Australia would each gain one member while all other States would retain their existing representation. However, no fresh redistribution was effected prior to the 1966 Census. Resulting from the population disclosed by the 1966 Census the Chief Electoral Officer determined that the number of members of the House of Representatives to be chosen in the several States shall be: New South Wales 45, Victoria 34, Queensland 18, South Australia 12, Western Australia 9, and Tasmania 5. A redistribution of the States into electoral divisions was effected in 1968 by distribution commissioners appointed in each State, and the reports submitted by the distribution commissioners were approved by both Houses of Parliament in respect of all States in October–November 1968. Consequently this new representation became effective at the general election of members of the House of Representatives held on 25 October 1969.

Since the general election of 1922 the Northern Territory has been represented by one member in the House of Representatives, and the Australian Capital Territory has had similar representation since the elections of 1949. The member for the the Australian Capital Territory has had full voting rights since the first sitting of the twenty-sixth Parliament. In May 1968 the Northern Territory Representation Act was amended to give full voting rights to the Member for the Northern Territory effective from 15 May 1968, the day on which the Act received Royal Assent.

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* A proposal to alter the Constitution so that numbers of members of the House of Representatives might be increased without necessarily increasing the number of Senators was the subject of a referendum in March 1967, but was rejected. *See* Year Book No. 54, page 66, for results of the Referendum.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representatives the State is divided into single electorates corresponding in number to the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Year Book.

The *Commonwealth Electoral Act* 1948, introduced with the *Representation Act* 1948 to enlarge the Commonwealth Parliament (*see* page 71), changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. For a description of the system, *see* Year Book No. 38, pages 82–3. The system of voting for both the Senate and the House of Representatives is preferential.

Particulars of voting at Senate elections and elections for the House of Representatives up to 1967 appear in earlier issues of the Year Book, and additional information is available in the *Statistical Returns* issued by the Chief Electoral Officer following each election.

The numbers of electors and of primary votes cast for the major political parties in each State and Territory at the latest election for each House were as follows.

COMMONWEALTH ELECTIONS, 1967 AND 1969

		Votes recorded						
State or Territory	*Electors enrolled*	*Liberal Party of Australia*	*Australian Country Party*	*Australian Labor Party*	*Australian Democratic Labor Party*	*Others*	*Informal*	*Total*
SENATE ELECTION, 25 NOVEMBER 1967								
New South Wales	2,328,345	891,751		989,552	96,927	69,395	151,700	2,199,325
Victoria	1,726,681	629,367		622,404	267,495	24,317	110,694	1,654,277
Queensland	899,836	348,939		369,304	110,310	. .	26,440	854,993
South Australia	594,480	252,816		255,513	18,885	8,745	32,864	568,823
Western Australia	441,957	131,239	44,862	179,833	30,587	4,051	27,832	418,404
Tasmania	200,622	66,399		73,384	15,802	28,011	9,711	193,307
Australia	**6,191,921**	**2,365,373**		**2,489,990**	**540,006**	**134,519**	**359,241**	**5,889,129**
HOUSE OF REPRESENTATIVES ELECTION, 25 OCTOBER 1969								
New South Wales	2,438,667	760,612	220,539	1,074,916	75,905	122,216	53,811	2,307,999
Victoria	1,809,549	626,474	113,958	689,515	180,205	57,722	56,724	1,724,598
Queensland	953,564	245,159	152,041	430,403	60,841	4,142	11,463	904,049
South Australia	624,626	245,287	. .	303,419	17,930	12,521	20,562	599,719
Western Australia	484,128	160,473	28,413	222,709	24,461	9,031	11,699	456,786
Tasmania	211,220	72,490	. .	105,556	8,635	13,741	3,538	203,960
Northern Territory	21,186	. .	8,281	5,204	. .	3,629	613	17,727
Australian Capital Territory	63,293	15,492	. .	39,070	. .	3,128	1,083	58,773
Australia	**6,606,233**	**2,125,987**	**523,232**	**2,870,792**	**367,977**	**226,130**	**159,493**	**6,273,611**

Membership at the beginning of 1970 was: *Senate*—Liberal Party of Australia, 20; Australian Country Party, 7; Australian Labor Party, 28; Australian Democratic Labor Party, 4; Australia Party, 1; *House of Representatives*—Liberal Party of Australia, 46; Australian Country Party, 20; Australian Labor Party, 59.

Members of the Commonwealth Parliament

The following is a list of Senators and Members of the House of Representatives of the Commonwealth Parliament as at 1 January 1970. Changes since that date are set out in the Appendix to this volume. Party affiliation is indicated by the use of the following abbreviations:

A.D.L.P.—Australian Democratic Labor Party
A.L.P.—Australian Labor Party
A.P.—Australia Party
C.P.—Australian Country Party
Lib.—Liberal Party of Australia

MEMBERS OF THE COMMONWEALTH PARLIAMENT, 1 JANUARY 1970(*a*)

THE SENATE

President:
SENATOR THE HON. SIR ALISTER MAXWELL MCMULLIN, K.C.M.G.

Chairman of Committees:
SENATOR T. L. BULL, O.B.E.

Leader of the Government in the Senate:
SENATOR THE HON. K. M. ANDERSON

Leader of the Opposition in the Senate:
SENATOR L. K. MURPHY, Q.C.

Senator	*State*	*Term(b) expires 30 June*
Anderson, Hon. K. M. (Lib.)	N.S.W.	1971
Bishop, R. (A.L.P.)	S.A.	1974
Branson, G. H. (Lib.)	W.A.	1971
Brown, W. W. C. (A.L.P.)	Vic.	(*c*)
Bull, T. L., O.B.E. (C.P.)	N.S.W.	1971
Buttfield, Nancy E. (Lib.)	S.A.	1974
Byrne, C. B. (A.D.L.P.)	Qld	1974
Cameron, D. N. (A.L.P.)	S.A.	1971
Cant, H. G. J. (A.L.P.)	W.A.	1971
Cavanagh, J. L. (A.L.P.)	S.A.	1974
Cormack, Sir Magnus, K.B.E. (Lib.)	Vic.	1974
Cotton, Hon. R. C. (Lib.)	N.S.W.	1974
Davidson, G. S. (Lib.)	S.A.	1971
Devitt, D. M. (A.L.P.)	Tas.	1971
Dittmer, F. (A.L.P.)	Qld	1971
Drake-Brockman, Hon. T. C., D.F.C. (C.P.)	W.A.	1971
Drury, A. J. (A.L.P.)	S.A.	1971
Fitzgerald, J. F. (A.L.P.)	N.S.W.	1974
Gair, Hon. V. C. (A.D.L.P.)	Qld	1971
Georges, G. (A.L.P.)	Qld	1974
Greenwood, I. J., Q.C. (Lib.)	Vic.	1971
Hendrickson, A. (A.L.P.)	Vic.	1971
Keeffe, J. B. (A.L.P.)	Qld	1971
Kennelly, Hon. P. J. (A.L.P.)	Vic.	1971
Lacey, R. H. (A.L.P.)	Tas.	1971
Laucke, C. L. (Lib.)	S.A.	1974
Lawrie A. G. E. (C.P.)	Qld	1971
Lillico, A. E. D. (Lib.)	Tas.	1971
Little, J. A. (A.D.L.P.)	Vic.	1974
McClelland, D. (A.L.P.)	N.S.W.	1974
McKellar, Hon. G. C. (C.P.)	N.S.W.	1974
McManus, F. P. (A.D.L.P.)	Vic.	1971
McMullin, Hon. Sir Alister, K.C.M.G. (Lib.)	N.S.W.	1971
Marriott, J. E. (Lib.)	Tas.	1971
Maunsell, C. R. (C.P.)	Qld	1974
Milliner, B. R. (A.L.P.)	Qld	1974
Mulvihill, J. A. (A.L.P.)	N.S.W.	1971
Murphy, L. K., Q.C. (A.L.P.)	N.S.W.	1974
O'Byrne, J. (A.L.P.)	Tas.	1971
Ormonde, J. P. (A.L.P.)	N.S.W.	1971
Poke, A. G. (A.L.P.)	Tas.	1974
Poyser, A. G. (A.L.P.)	Vic.	1974
Prowse, E. W. (C.P.)	W.A.	1974
Rae, P. E. (Lib.)	Tas.	1974
Rankin, Hon. Dame Annabelle, D.B.E. (Lib.)	Qld	1974
Ridley, C. F. (A.L.P.)	S.A.	1971
Scott, Hon. M. F. (Lib.)	W.A.	1971
Sim, J. P. (Lib.)	W.A.	1974
Toohey, J. P. (A.L.P.)	S.A.	1971
Turnbull, R. J. D. (A.P.)	Tas.	1974
Webster, J. J. (C.P.)	Vic.	1974
Wedgwood, Dame Ivy E. D.B.E. (Lib.)	Vic.	1971
Wheeldon, J. M. (A.L.P.)	W.A.	1971
Wilkinson, L. D. (A.L.P.)	W.A.	1974
Willesee, D. R. (A.L.P.)	W.A.	1974
Withers, R. G. (Lib.)	W.A.	1974
Wood, I. A. C. (Lib.)	Qld	1971
Wriedt, K. S. (A.L.P.)	Tas.	1974
Wright, Hon. R. C. (Lib.)	Tas.	1974
Young, H. W. (Lib.)	S.A.	1974

(*a*) For later changes *see* appendix. (*b*) Senators are elected for a term of six years on a rotational basis; the terms of half the Senators expire every third year. (*c*) Subject to Section 15 of the Constitution.

MEMBERS OF THE COMMONWEALTH PARLIAMENT
1 JANUARY 1970(*a*)—*continued*

THE HOUSE OF REPRESENTATIVES
(Triennial Parliaments—Last General Election
25 October 1969)

Speaker:
THE HON. SIR WILLIAM ASTON, K.C.M.G., M.P.

Chairman of Committees:
P. E. LUCOCK, M.P.

Leader of the Opposition:
E. G. WHITLAM, Q.C., M.P.

Member	*Division*
Adermann, Rt Hon. C. F. (C.P.)	Fisher (Q.)
Anthony, Hon. J. D. (C.P.)	Richmond (N.S.W.)
Armitage, J. L. (A.L.P.)	Chifley (N.S.W.)
Aston, Hon. Sir William (Lib.)	Phillip (N.S.W.)
Barnard, L. H. (A.L.P.)	Bass (T.)
Barnes, Hon. C. E. (C.P.)	McPherson (Q.)
Bate, H. J. (Lib.)	Macarthur (N.S.W.)
Beazley, K. E. (A.L.P.)	Fremantle (W.A.)
Bennett, A. F. (A.L.P.)	Swan (W.A.)
Berinson, J. M. (A.L.P.)	Perth (W.A.)
Birrell, F. R. (A.L.P.)	Port Adelaide (S.A.)
Bonnett, R. N. (Lib.)	Herbert (Q.)
Bowen, L. F. (A.L.P.)	Kingsford-Smith (N.S.W.)
Bowen Hon. N. H., Q.C. (Lib.)	Parramatta (N.S.W.)
Brown, N. A. (Lib.)	Diamond Valley (V.)
Bryant, G. M. (A.L.P.)	Wills (V.)
Buchanan, A. A. (Lib.)	McMillan (V.)
Bury, Hon. L. H. E. (Lib.)	Wentworth (N.S.W.)
Cairns, J. F. (A.L.P.)	Lalor (V.)
Cairns, K. M. K. (Lib.)	Lilley (Q.)
Calder, S. E., D.F.C. (C.P.)	Northern Territory
Calwell, Rt Hon. A. A. (A.L.P.)	Melbourne (V.)
Cameron, C. R. (A.L.P.)	Hindmarsh (S.A.)
Cameron, D. M. (Lib.)	Griffith (Q.)
Cass, M. H. (A.L.P.)	Maribyrnong (V.)
Chipp, Hon. D. L. (Lib.)	Hotham (V.)
Cohen, B. (A.L.P.)	Robertson (N.S.W.)
Collard, F. W. (A.L.P.)	Kalgoorlie (W.A.)
Connor, R. F. X. (A.L.P.)	Cunningham (N.S.W.)
Cope, J. F. (A.L.P.)	Sydney (N.S.W.)
Corbett, J. (C.P.)	Maranoa (Q.)
Cramer, Hon. Sir John (Lib.)	Bennelong (N.S.W.)
Crean, F. (A.L.P.)	Melbourne Ports (V.)
Cross, M. D. (A.L.P.)	Brisbane (Q.)
Daly, F. M. (A.L.P.)	Grayndler (N.S.W.)
Davies, R. (A.L.P.)	Braddon (T.)
Dobie, J. D. M. (Lib.)	Cook (N.S.W.)
Drury, E. N. (Lib.)	Ryan (Q.)
Duthie, G. W. A. (A.L.P.)	Wilmot (T.)
England, J. A., E.D. (C.P.)	Calare (N.S.W.)
Erwin, Hon. G. D. (Lib.)	Ballaarat (V.)
Everingham, D. N. (A.L.P.)	Capricornia (Q.)
Fairbairn, Hon. D. E., D.F.C. (Lib.)	Farrer (N.S.W.)
FitzPatrick, J. (A.L.P.)	Darling (N.S.W.)
Forbes, Hon. A. J., M.C. (Lib.)	Barker (S.A.)
Foster, N. K. (A.L.P.)	Sturt (S.A.)
Fox, E. M. C. (Lib.)	Henty (V.)
Fraser, A. D. (A.L.P.)	Eden-Monaro (N.S.W.)
Fraser, Hon. J. M. (Lib.)	Wannon (V.)
Fraser, J. R. (A.L.P.)	Aust. Cap. Terr.
Fulton, W. J. (A.L.P.)	Leichhardt (Q.)
Garland, R. V. (Lib.)	Curtin (W.A.)
Garrick, H. J. (A.L.P.)	Batman (V.)
Giles, G. O'H. (Lib.)	Angas (S.A.)
Gorton, Rt Hon. J. G. (Lib.)	Higgins (V.)
Graham, B. W. (Lib.)	North Sydney (N.S.W.)
Grassby, A. J. (A.L.P.)	Riverina (N.S.W.)
Griffiths, C. E. (A.L.P.)	Shortland (N.S.W.)
Gun, R. T. (A.L.P.)	Kingston (S.A.)
Hallett, J. M. (C.P.)	Canning (W.A.)
Hamer, D. J. (Lib.)	Isaacs (V.)
Hansen, B. P. (A.L.P.)	Wide Bay (Q.)
Hayden, W. G. (A.L.P.)	Oxley (Q.)
Holten, Hon. R. McN. (C.P.)	Indi (V.)
Howson, Hon. P. (Lib.)	Casey (V.)
Hughes, Hon., T. E. F., Q.C. (Lib.)	Berowra (N.S.W.)
Hulme, Hon. A. S. (Lib.)	Petrie (Q.)
Hunt, R. J. D. (C.P.)	Gwydir (N.S.W.)
Hurford, C. J. (A.L.P.)	Adelaide (S.A.)

MEMBERS OF THE COMMONWEALTH PARLIAMENT
1 JANUARY 1970(*a*)—*continued*

THE HOUSE OF REPRESENTATIVES—*continued*

Member	*Division*
Irwin, L. H., M.B.E. (Lib.)	Mitchell (N.S.W.)
Jacobi, H. R. (A.L.P.)	Hawker (S.A.)
James, A. W. (A.L.P.)	Hunter (N.S.W.)
Jarman, A. W. (Lib.)	Deakin (V.)
Jenkins, H. A. (A.L.P.)	Scullin (V.)
Jess, J. D. (Lib.)	La Trobe (V.)
Johnson, L. K. (A.L.P.)	Burke (V.)
Johnson, L. R. (A.L.P.)	Hughes (N.S.W.)
Jones, C. K. (A.L.P.)	Newcastle (N.S.W.)
Katter, R. C. (C.P.)	Kennedy (Q.)
Keating, P. J. (A.L.P.)	Blaxland (N.S.W.)
Kelly, Hon. C. R. (Lib.)	Wakefield (S.A.)
Kennedy, A. D. (A.L.P.)	Bendigo (V.)
Kent Hughes, Hon. Sir Wilfrid, K.B.E., M.V.O., M.C., E.D. (Lib.)	Chisholm (V.)
Keogh, L. J. (A.L.P.)	Bowman (Q.)
Killen, Hon. D. J. (Lib.)	Moreton (Q.)
King, R. S. (C.P.)	Wimmera (V.)
Kirwan, F. McL. (A.L.P.)	Forrest, (W.A.)
Klugman, R. E. (A.L.P.)	Prospect (N.S.W.)
Luchetti, A. S. (A.L.P.)	Macquarie (N.S.W.)
Lucock, P. E. (C.P.)	Lyne (N.S.W.)
Lynch, Hon. P. R. (Lib.)	Flinders (V.)
Mackay, M. G. (Lib.)	Evans (N.S.W.)
MacKellar, M. J. R. (Lib.)	Warringah (N.S.W.)
Maisey, D. W. (C.P.)	Moore (W.A.)
Martin, V. J. (A.L.P.)	Banks (N.S.W.)
McEwen, Rt Hon. J., C.H. (C.P.)	Murray (V.)
McIvor, H. J. (A.L.P.)	Gellibrand (V.)
McLeay, J. E. (Lib.)	Boothby (S.A.)
McMahon, Rt Hon. W. (Lib.)	Lowe (N.S.W.)
Morrison, W. L. (A.L.P.)	St George (N.S.W.)
Nicholls, M. H. (A.L.P.)	Bonython (S.A.)
Nixon, Hon. P. J. (C.P.)	Gippsland (V.)
O'Keeffe, F. L. (C.P.)	Paterson (N.S.W.)
Patterson, R. A. (A.L.P.)	Dawson (Q.)
Peacock, Hon. A. S. (Lib.)	Kooyong (V.)
Pettitt, J. A. (C.P.)	Hume (N.S.W.)
Reid, L. S. (Lib.)	Holt (V.)
Reynolds, L. J. (A.L.P.)	Barton (N.S.W.)
Robinson, I. L. (C.P.)	Cowper (N.S.W.)
Scholes, G. G. D. (A.L.P.)	Corio (V.)
Sherry, R. H. (A.L.P.)	Franklin (T.)
Sinclair, Hon. I. McC. (C.P.)	New England (N.S.W.)
Snedden, Hon. B. M., Q.C. (Lib.)	Bruce (V.)
Solomon, R. J. (Lib.)	Denison (T.)
Stewart, F. E. (A.L.P.)	Lang (N.S.W.)
Street, A. A. (Lib.)	Corangamite (V.)
Swartz, Hon. R. W. C., M.B.E., E.D. (Lib.)	Darling Downs (Q.)
Turnbull, W. G., C.B.E. (C.P.)	Mallee (V.)
Turner, H. B. (Lib.)	Bradfield (N.S.W.)
Uren, T. (A.L.P.)	Reid (N.S.W.)
Wallis, L. G. (A.L.P.)	Grey (S.A.)
Webb, C. H. (A.L.P.)	Stirling (W.A.)
Wentworth, Hon. W. C. (Lib.)	Mackellar (N.S.W.)
Whitlam, E. G., Q.C. (A.L.P.)	Werriwa (N.S.W.)
Whittorn, R. H. (Lib.)	Balaclava (V.)

(*a*) For later changes *see* Appendix.

Commonwealth referendums

In accordance with section 128 of the Constitution any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved also by a majority of the electors in a majority of the States and by a majority of all the electors who voted, before it can be presented for Royal Assent. Twenty-six such proposals have so far been submitted to referendums and the consent of the electors has been received in five cases, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928, the fourth in respect of Social Services in 1946, and the fifth in respect of Aborigines in 1967. In addition to referendums for alteration of the Constitution, other Commonwealth referendums have been held, two prior to Federation regarding the proposed Constitution and two regarding military service during the 1914–1918 War. For details of earlier referendums *see* Year Book No. 52, pages 66–8.

On 1 March 1967 two Bills were introduced in the House of Representatives to alter the Constitution, one to enable the number of members of the House of Representatives to be increased without necessarily increasing the number of Senators, the other to enable the Aboriginal people to be counted in reckoning the population and to omit certain words relating to the Aboriginal race which some people felt were discriminatory. The proposed laws, after being passed by both Houses of Parliament, were submitted to the electors of the States at referendums held on 27 May 1967. At the referendums the electors voted in all States in favour of the proposal regarding Aboriginals, but rejected in all States but New South Wales the proposal for increasing the number of members of the House of Representatives. For a summary of the results of the voting on each of the proposals *see* Year Book No. 54, page 66.

Consequent upon obtaining the approval of the electors, the Constitution Alteration (Aboriginals) was assented to on 10 August 1967. Section 51 of the Constitution is thereby altered by omitting from paragraph (xxvi) the words 'other than the aboriginal race in any State', and Section 127 of the Constitution is thereby repealed.

The Parliaments of the States

This chapter contains summarised information on the Parliaments of each State, the numbers of Houses and members, and salaries payable. For greater detail, including some historical material, reference should be made to earlier Year Books, particularly No. 50, pages 69–72. Recent changes have been reported in successive issues of the Year Book.

Membership of State Parliaments. The following table shows the party distribution in each of the various State Parliaments at the end of 1968.

STATE PARLIAMENTS: MEMBERSHIP, BY PARTY AFFILIATION, 31 DECEMBER 1969

Party	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*
UPPER HOUSE						
Australian Country Party (C.P.)	13	9	..	..	8	..
Australian Labor Party (A.L.P.)	26	9	..	4	10	2
Independent (Ind.)	..	..	..	..	..	(*a*)17
Independent Labor (Ind. Lab.)	6	..	..	..	..	..
Liberal and Country League (L.C.L.)	..	..	..	16	..	..
Liberal Party of Australia (Lib.)	15	17	..	..	(*b*)12	..
Total	**60**	**35**	(*c*)	**20**	**30**	**19**
LOWER HOUSE						
Australian Centre Party (A.C.P.)	..	..	..	..	..	1
Australian Country Party (C.P.)	17	12	26	..	9	..
Australian Labor Party (A.L.P.)	39	17	31	19	23	17
Independent (Ind.)	2	..	..	1	..	..
Independent Labor (Ind. Lab.)	..	1	..	..	..	..
Liberal and Country League (L.C.L.)	..	..	..	19	..	..
Liberal Party of Australia (Lib.)	36	43	19	..	(*b*)19	17
North Queensland Labor Party (N.Q.L.P.)	..	..	1	..	..	..
Democratic Labor Party (D.L.P.)	..	..	1	..	..	..
Total	**94**	**73**	**78**	**39**	**51**	**35**

(*a*) In Legislative Council elections only the A.L.P. normally endorses candidates. (*b*) Formerly Liberal and Country League, which changed its name on 15 July 1968 to the Liberal Party of Australia (Western Australian Division) Incorporated. (*c*) Upper House abolished in 1922.

The Australian Country Party: Queensland, and the Country Party of Western Australia are shown above as the Australian Country Party, since they are affiliated with the Federal body.

For corresponding particulars for the Commonwealth Parliament, *see* page 72.

Number and salary of members of the legislatures, Australian Parliaments, January 1970.

AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES, 1 JANUARY 1970

Members in—	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
NUMBER OF MEMBERS								
Upper House . .	60	60	35	(*a*)	20	30	19	224
Lower House . .	125	94	73	78	39	51	35	495
Total . .	**185**	**154**	**108**	**78**	**59**	**81**	**54**	**719**
ANNUAL SALARY ($)								
Upper House . .	(*b*)9,500	(*c*)2,395	(*d*)7,750	(*a*)	(*e*)7,500	(*f*)7,500	(*g*)6,000	. .
Lower House . .	(*b*)9,500	(*h*)8,035	(*d*)7,750	(*i*)7,560	(*e*)7,500	(*f*)7,500	(*g*)6,000	. .

(*a*) Abolished in 1922. (*b*) Plus expense allowances—Senators, $2,650; Members of the House of Representatives, city electorates, $2,750, country electorates, $3,350. Certain additional allowances are also provided for holders of parliamentary offices, etc. (*c*) Plus allowance of $1,690. An additional $10 per day is payable to members who live outside the metropolitan area. (*d*) Plus allowances from $2,000 for metropolitan to $2,400 for urban, $2,800 for inner country, and $3,100 for outer country electorates. (*e*) Plus an allowance varying from $1,400 to $2,200 depending on distance from Adelaide. (*f*) Plus expense reimbursement ranging from $1,600 for a metropolitan member to $3,300 for a north province member. (*g*) Plus allowance according to area of electorate and distance from the capital varying from $600 to $1,400 in the case of the Legislative Council, and from $1,100 to $2,100 in the case of the House of Assembly. (*h*) Plus allowance varying from $1,945 to $2,880 according to location of electorate. (*i*) Plus individual electoral allowances ranging from $1,245 to $2,970.

Cost of parliamentary government

The table below shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activites; *it does not attempt to cover the expenditure on Commonwealth and State administration generally.* Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. A very large part of the expenditure under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, carried out at the request of the Government. The item includes salaries of Government House staffs and maintenance of residences, official establishments, grounds, etc., and expenditure on capital works and services.

COST OF PARLIAMENTARY GOVERNMENT, 1968-69
($'000)

Expenditure group	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Governor-General or Governor(*a*)	(*b*)549	177	251	148	158	105	124	1,512
Ministry(*c*)	1,061	299	116	142	123	206	184	2,132
Parliament—								
Upper House(*d*)	783	272	361	. .	148	323	138	2,025
Lower House(*d*)	1,584	827	696	771	297	450	228	4,853
Both Houses(*e*)	3,595	1,078	905	529	572	492	150	7,320
Miscellaneous(*f*)	1,564	247	129	72	89	36	56	2,191
Total, Parliament . .	*7,526*	*2,423*	*2,090*	*1,371*	*1,104*	*1,300*	*573*	*16,389*
Electoral(*g*)	2,866	262	164	386	166	113	165	4,122
Royal Commissions, Select Committees, etc. . . .	126	1	66	. .	30	42	17	283
Grand Total . . .	**12,128**	**3,163**	**2,688**	**2,048**	**1,581**	**1,766**	**1,063**	**24,437**

(*a*) Salaries and other expenses, including maintenance of house and grounds. (*b*) Includes official establishments, $168,907. (*c*) Salaries as ministers, and travelling and other expenses. (*d*) Allowances to members (including ministers' salaries as members), travelling and other expenses. (*e*) Government contribution to members' superannuation funds, printing, reporting staff, library, etc. (*f*) Services, furniture, stores, etc. (*g*) Salaries, cost of election, etc.

COST OF PARLIAMENTARY GOVERNMENT, 1964-65 TO 1968-69

Year	*Cwlth*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
				TOTAL ($'000)				
1964–65	8,939	2,426	1,995	1,299	1,177	1,498	740	18,074
1965–66	8,897	2,494	1,985	1,546	1,285	1,451	779	18,438
1966–67	12,028	3,105	2,489	1,609	1,540	1,408	805	22,983
1967–68	12,697	3,379	2,297	1,590	1,568	1,800	929	24,260
1968–69	12,128	3,163	2,688	2,048	1,581	1,766	1,063	24,437
				PER HEAD OF POPULATION ($)				
1964–65	0.79	0.59	0.64	0.80	1.12	1.83	2.02	1.60
1965–66	0.77	0.59	0.62	0.93	1.19	1.73	2.11	1.60
1966–67	1.03	0.73	0.77	0.95	1.39	1.63	2.15	1.96
1967–68	1.06	0.78	0.70	0.93	1.40	2.02	2.45	2.03
1968–69	0.99	0.71	0.79	1.16	1.38	1.87	2.74	1.99

Commonwealth Government Departments

In Year Book No. 49 (pages 87–98) a list appears of the Commonwealth Government Departments, giving particulars of each Department, as at the end of 1962, of the principal matters dealt with and the Acts administered by the Minister concerned. Changes made during 1963 and 1966 are shown, respectively, on page 83 of Year Book No. 50 and page 74 of Year Book No. 53. Changes made during 1968 are shown in the Appendix to Year Book No. 54 (pages 1276–7). For detailed information on the organisation of the Departments and Agencies of the Commonwealth Government *see* The *Commonwealth Directory* (latest issue 1970).

Enactments of the Parliaments

In the Commonwealth all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States other than South Australia and Tasmania laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal assent. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States in all cases whatsoever. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is to the extent of the inconsistency invalid.

The course of Commonwealth legislation

The actual legislation by the Commonwealth Parliament during 1969 is indicated in alphabetical order in *The Acts of the Parliament of the Commonwealth of Australia passed during the year 1969 in the Second Session of the Twenty-sixth Parliament of the Commonwealth, with Appendix, Tables and Index.* A chronological table of Acts passed from 1901 to 1969 showing how they are affected by subsequent legislation or lapse of time is also given, and, further, a table of Commonwealth legislation passed from 1901 to 1969 in relation to the several provisions of the Constitution is furnished in the same volume. Reference should be made to these for complete information.

The Acts passed by the Commonwealth Parliament during the year 1969 are listed on pages 79–82. In many cases the title of the Act indicates the general scope of the Act, but brief explanatory notes have been added where necessary. Appropriate chapters of this Year Book should be referred to for further information which may be available there.

The total enactments of the Commonwealth Parliament for a number of years at fairly even intervals since 1901 show a general increase. Seventeen Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939, 109 in 1952, 156 in 1965, 157 in 1968, and 102 in 1969.

Commonwealth legislation passed during 1969

Aged Persons Homes Act 1969 (No. 68) subsidised organisations providing approved personal care services in 'hostel' type accommodation at the rate of $5.00 per week in respect of all residents over 80 years of age.

Airline Equipment (Loan Guarantee) Act 1969 (No. 97) authorised the Treasurer to guarantee loans raised by Ansett Transport Industries in financing the purchase of one Boeing 727 and six Douglas DC9 aircraft.

Air Navigation (Charges) Act 1969 (No. 75) increased the rates of air navigation charges payable by domestic airlines and general aviation operators by ten per cent from 1 January 1970.

Appropriation Act (No. 3) 1968–69 (No. 27); *Appropriation Act* (No. 4) 1968–69 (No. 28);

Appropriation Act (No. 1) 1969–70 (No. 85); *Appropriation Act* (No. 2) 1969–70 (No. 86).

Audit Act 1969 (No. 20) changed the procedures relating to the Governor-General's warrant; modernised the wording of the original Act and clarified the law relating to existing procedures; provided authority for the Commonwealth to make payments due to small deceased estates; brought the penalty provisions into line with those provided in the Crimes Act.

Australian Capital Territory Taxation (Administration) Act 1969 (No. 42); *Australian Capital Territory Tax (Cheques) Act* 1969 (*No.* 43); *Australian Capital Territory Tax (Hire Purchase Business) Act* 1969 (No. 44); *Australian Capital Territory Tax (Insurance Business) Act* 1969 (No. 45); *Australian Capital Territory Tax (Sales of Marketable Securities) Act* 1969 (No. 46); *Australian Capital Territory Tax (Purchases of Marketable Securities) Act* 1969 (No. 47); *Australian Capital Territory Stamp Duty Act* 1969 (No. 48). These Acts provided for the collection of stamp duties on a range of instruments and transactions connected with the Australian Capital Territory.

Australian Coastal Shipping Commission Act 1969 (No. 55) empowered the Australian Coastal Shipping Commission to buy into Australian land-based facilities owned by other companies.

Book Bounty Act 1969 (No. 83) provided interim assistance to book manufacturers by payment of a bounty at the rate of twenty-five per cent of the cost of production of each book of a literary or educational character.

Broadcasting and Television Act 1969 (No. 21) appointed a full-time member of the Broadcasting Control Board as Vice-Chairman who would act for the Chairman in his absence; made it an offence for any person to interfere with or obstruct the broadcasting or televising of programmes or to interfere with the operation of a station in any way.

Broadcasting and Television Act (No. 2) 1969 (No. 31) limited, as from 24 September 1968, the number of broadcasting stations which a person may own or control to four commercial stations in any one State including one metropolitan commercial station; or eight commercial stations in Australia including four metropolitan commercial stations.

Cellulose Acetate Flake Bounty Act 1969 (No. 64) extended the operation of the *Cellulose Acetate Flake Bounty Act* 1956–1966 for a further maximum period of six months to 30 June 1970 unless an earlier date of cessation is specified by proclamation.

Chicken Meat Research Act 1969 (No. 35) provided for the establishment and operation of a joint Commonwealth-industry research scheme for the chicken meat industry.

Citizenship Act 1969 (No. 22) provided that a citizen of any Commonwealth country has the status of British subject; simplified the granting of citizenship for settlers from Commonwealth countries; and reduced the period of residence required for naturalisation to three years for those who can meet the Minister's requirements.

Commonwealth Aid Roads Act 1969 (No. 41) provided for grants to the States for roads totalling $1,252.05m over a five-year period.

Commonwealth Employees' Compensation Act 1969 (No. 11) amended Section 15 of the *Commonwealth Employees' Compensation Act* so that the section applied to a determination made by a Deputy Public Service arbitrator, as well as the Public Service Arbitrator.

Conciliation and Arbitration Act 1969 (No. 12) amended the *Conciliation and Arbitration Act* 1904–1968 consequent on the provision in the *Public Service Arbitration Act* 1969 for the appointment of Deputy Public Service Arbitrators.

Conciliation and Arbitration Act (No. 2) 1969 (No. 15) provided for seven instead of five judges of the Commonwealth Industrial Court, in addition to the Chief Judge.

Coral Sea Islands Act 1969 (No. 58) provided for the government of certain islands in the Coral Sea and for those islands to be constituted the Coral Sea Islands Territory.

Currency Act 1969 (No. 4) provided for the re-introduction of the 50 cent coin, and for that coin to be 12-sided and made of cupro-nickel.

Customs Tariff Act 1969 (No. 8).

Customs Tariff Act (No. 2) 1969 (No. 32).

Customs Tariff Validation Act 1969 (No. 84).

Commonwealth legislation passed during 1969—continued

Decimal Currency Board (*Abolition*) *Act* 1969 (No. 25) provided for the abolition of the Decimal Currency Board and the continuance of the duties of the Board by officers of the Treasury.

Defence Forces Retirement Benefits Act 1969 (No. 61) provided that a reinstated member under the provisions of the *Defence* (*Parliamentary Candidates*) *Act* 1969, may make certain elections under the Defence Forces Retirement Benefits Act.

Defence (*Parliamentary Candidates*) *Act* 1969 (No. 60) repealed the *Defence* (*Parliamentary Candidates*) *Act* 1966 and permitted all members of the Defence Forces to contest Federal Parliamentary elections, not relieving them thereby of their commitment to serve in the Armed Forces in the event of their being unsuccessful but preserving all their rights and benefits as servicemen.

Excise Tariff Act 1969 (No. 5).

Excise Tariff Act (No. 2) 1969 (No. 33).

Fishing Industry Research Act 1969 (No. 80) established the Fishing Industry Research Account to support projects of research, education, extension and development of the industry.

Income Tax Act 1969 (No. 73).

Income Tax Assessment Act 1969 (No. 18).

Income Tax Assessment Act (No. 2) 1969 (No. 93).

Income Tax Assessment Act (No. 3) 1969 (No. 101).

Income Tax (*Drought Bonds*) *Act* 1969 (No. 100) imposed the tax payable when the bonds are redeemed for reasons other than drought, fire or flood.

Income Tax (*International Agreements*) *Act* 1969 (No. 24).

Income Tax (*Partnerships and Trusts*) *Act* 1969 (No. 74).

Independent Schools (*Loans Guarantee*) *Act* 1969 (No. 23) authorised the Government to give guarantees on behalf of the Commonwealth in respect of certain loans made to independent schools in the Australian Capital Territory and Northern Territory to assist the independent school authorities to obtain additional loan funds.

International Sugar Agreement Act 1969 (No. 9) ratified the International Sugar Agreement, 1968.

Judiciary Act 1969 (No. 39) increased the salaries of the Chief Justice (from $24,000 to $30,000 p.a.) and each other Justice (from $21,000 to $27,000 p.a.) and provided an allowance of $2,000 p.a. and $1,500 p.a. for the Chief Justice and each other Justice respectively.

Judges' Remuneration Act 1969 (No. 40) increased the salaries of the Chief Judge of the Commonwealth Industrial Court and the President of the Commonwealth Conciliation and Arbitration Commission from $19,000 to $24,000 p.a., and provided them with an allowance of $1,500 p.a.; and increased the salaries of the judges of the Commonwealth Industrial Court, Federal Court of Bankruptcy, Supreme Courts of the Australian Capital Territory and Northern Territory and the deputy presidents of the Commission from $17,000 to $22,000 p.a., and provided them with an allowance of $1,000 p.a.

Loan (*Canadian Dollars*) *Act* 1969 (No. 69) amended the *Loan* (*Canadian Dollars*) *Act* 1955 to allow a conversion issue to be arranged for a Canadian loan of 15 million Canadian dollars maturing on 1 November 1970.

Loan (*Drought Bonds*) *Act* 1969 (No. 99) provided for the creation, issue and redemption of securities to be known as drought bonds carrying taxation concessions for eligible graziers in arid areas that could be prematurely redeemed to reduce the impact of drought, fire or flood.

Loan (*Housing*) *Act* 1969 (No. 59) authorised the borrowing of $132,230,000 by the States for housing in the current financial year in accordance with the provisions of the *Housing Agreement Act* 1966.

Loan (*Supplementary Borrowing*) *Act* 1969 (No. 3) provided legislative authority to appropriate loan funds up to $150 million to enable the proceeds of any further overseas loans to be credited to the Loan Consolidation and Investment Reserve, where they would then be available for investment in the special loan raised to complete the financing of the State's share of the 1968–69 works and housing programme approved by the Loan Council.

Loan (*Swiss Francs*) *Act* 1969 (No. 70) amended the *Loan* (*Swiss Francs*) *Act* 1955 to allow a conversion issue to be arranged for a Swiss loan of 60 million Swiss Francs maturing on 1 March 1970.

Loans (*Australian National Airlines Commission*) *Act* 1969 (No. 98) approved the borrowings not exceeding $US 31 million ($A 27.7 million) for the Australian National Airlines Commission to assist in financing the purchase of one Boeing 727 and six Douglas DC9 aircraft.

Meat Chicken Levy Act 1969 (No. 36) imposed a levy, for three years, of one-tenth of a cent per meat chicken hatched to finance a programme of meat chicken research.

Meat Chicken Levy Collection Act 1969 (No. 37) provided for the collection of the levy imposed by the *Meat Chicken Levy Act* 1969.

Commonwealth legislation passed during 1969—continued

Meat Industry Act 1969 (No. 57) increased the number of meat producer representatives on the Australian Meat Board from five to six; empowered the Board to issue, cancel or suspend export licences, and provided the applicant or licensee with a right of appeal to the Minister against a decision of the Board.

National Health Act 1969 (No. 102) provided adequate insurance cover under the national health scheme for those on low incomes and for migrants during their first two months in Australia.

New South Wales Grant (Gwydir River Dam) Act 1969 (No. 53) provided a grant of up to $20 million to accelerate the completion of the Copeton Dam on the Gwydir River.

Nitrogenous Fertilisers Subsidy Act 1969 (No. 79) extended the existing subsidy on nitrogenous fertilisers a further three years to 31 October 1972 and made provision for payment of subsidy on imported fertilisers under certain specified conditions.

Northern Territory (Administration) Act 1969 (No. 88) amended section 21 of the *Northern Territory (Administration) Act* 1968 concerning the Aborigines Benefits Trust Fund and set out the principles to be followed for the use of Fund revenue.

Officers' Rights Declaration Act 1969 (No. 13) amended the *Officers' Rights Declaration Act* 1928–1968 consequent on the provision in the *Public Service Arbitration Act* 1969 for the appointment of Deputy Public Service Arbitrators.

Patents Act 1969 (No. 34) provided for major changes in the procedures for the granting of patents, including examination no longer automatic; deferred examination; separate fees for examination and annual fees to maintain applications; and modified examination in certain cases.

Pay-roll Tax Assessment Act 1969 (No. 19).

Petroleum Search Subsidy Act 1969 (No. 38) extended the period of operation of the *Petroleum Search Subsidy Act* 1959–1967 for a further five years.

Phosphate Fertilisers Bounty Act 1969 (No. 66) provided for an increase in the bounty rate on standard superphosphate by $4 per ton to bring the total bounty to $12 per ton, and provided for an increase to $60 per ton of the bounty on the phosphorus pentoxide content in superphosphate other than standard superphosphate, and other phosphatic fertilisers.

Public Service Arbitration Act 1969 (No. 10) amended the *Public Service Arbitration Act* 1920–68 and provided for the appointment of deputy arbitrators to augment the Public Service arbitration tribunal.

Public Works Committee Act 1969 (No. 92) provided that the cost limit below which Commonwealth public works need not be referred to the Public Works Committee be raised from $500,000 to $750,000 and that the committee may examine only those public works which are carried out by, or for, the Commonwealth within the Commonwealth or within a Territory of the Commonwealth.

Pyrites Bounty Act 1969 (No. 62) extended the operation of the *Pyrites Bounty Act* 1960–1965 for a further maximum period of twelve months to 30 June 1970 unless an earlier date of cessation is specified by proclamation.

Quarantine Act 1969 (No. 1) revised the maximum penalties imposed upon persons convicted of quarantine offences and provided for a smoother functioning of quarantine administration whilst causing less inconvenience to importers and travellers.

Raw Cotton Bounty Act 1969 (No. 16) extended the payment of a bounty on raw cotton production in Australia for a further three-year period commencing with the 1969 cotton crop.

Repatriation Act 1969 (No. 95) increased T.P.I. rate of war pension by $2.50 to $36.00 per week; intermediate rate of war pension by $2.25 to $26.50 per week; war widows pension and service pensions by $1.00 to $15.00 per week; and increases in certain allowances.

Scholarships Act 1969 (No. 17) provided a legislative basis for the five major scholarship schemes under which the Commonwealth makes awards to students in schools, colleges and universities and repealed the *Education Act* 1945–66.

Seamen's War Pensions and Allowances Act 1969 (No. 96) increased the pensions and allowances under the *Seamen's War Pensions and Allowances Act*.

Social Services Act 1969 (No. 94) increased the standard rate of pension for the aged, invalids and widows with children by $1.00 per week to $15.00 per week; pensions for married couples by 75 cents per week to $13.25 per week, and introduced the tapered means test.

South Australian Grant (Tailem Bend to Keith Pipeline) Act 1969 (No. 52) provided for a contribution of $6 million to South Australia to accelerate the completion of the Tailem Bend–Keith pipeline scheme.

Spirits Act 1969 (No. 6) allowed brandy distilled at a strength of up to 45 per cent overproof to be described as 'pure Australian standard brandy' or 'Australian blended brandy'.

States Grants (Aboriginal Advancement) Act 1969 (No. 77).

States Grants (Aboriginal Advancement) Act (No. 2) 1969 (No. 78).

Commonwealth legislation passed during 1969—continued

State Grants (Advanced Education) Act 1969 (No. 81).

States Grants (Advanced Education) Act (No. 2) 1969 (No. 82).

States Grants (Dwellings for Aged Pensioners) Act 1969 (No. 87).

States Grants (Home Care) Act 1969 (No. 49).

States Grants (Independent Schools) Act 1969 (No. 89) introduced special purpose grants to the States for transmission to independent schools as a contribution from the Commonwealth to their running costs.

States Grants (Nursing Homes) Act 1969 (No. 51).

States Grants (Paramedical Services) Act 1969 (No. 50).

States Grants (Petroleum Products) Act 1969 (No. 90) amended the *States Grants (Petroleum Products) Act* 1965 and reviewed subsidy payments on petroleum products in country areas where distribution costs have increased in order to restore the difference between capital city and country wholesale prices to 3.3 cents a gallon.

States Grants (Special Financial Assistance) Act 1969 (No. 56).

States Grants (Universities) Act 1969 (No. 76).

Sulphuric Acid Bounty Act 1969 (No. 63) extended the operation of the *Sulphuric Acid Bounty Act* 1954–1966 for a further maximum period of twelve months to 30 June 1970 unless an earlier date of cessation is specified by proclamation.

Sulphate of Ammonia Bounty Act 1969 (No. 65) extended the operation of the *Sulphate of Ammonia Bounty Act* 1962–1966 for a further maximum period of six months to 30 June 1970 unless an earlier date of cessation is specified by proclamation.

Superannuation Act 1969 (No. 14) amended the *Superannuation Act* 1922–1968 consequent on the provision in the *Public Service Arbitration Act* 1969 for the appointment of Deputy Public Service Arbitrators.

Superannuation Act (No. 2) 1969 (No. 26) provided for non-contributory units, within specified limits, in the Commonwealth superannuation scheme and also reduced the degree of tapering in eligibility for pension benefits under the scheme.

Supply Act (No. 1) 1969–70 (No. 29).

Supply Act (No. 2) 1969–70 (No. 30).

Tasmania Grant Act 1969 (No. 91) authorised payment in 1969–70 of a special grant to Tasmania of 21.9 million.

Tasmania Grant (Cressy–Longford Irrigation Works) Act 1969 (No. 71) granted financial assistance of up to $750,000 for the construction of the Cressy–Longford irrigation scheme.

Universities (Financial Assistance) Act 1969 (No. 7).

Universities (Financial Assistance) Act (No. 2) 1969 (No. 72).

Urea Bounty Act 1969 (No. 67) extended the operation of the *Urea Bounty Act* 1966 for a further maximum period of six months to 30 June 1970 unless an earlier date of cessation is specified by proclamation.

Victoria Grant (King River Dam) Act 1969 (No. 54) granted financial assistance of up to $4 million to enable the earlier construction of the King River Dam.

Wine Grapes Charges Act 1969 (No. 2) amended the *Wine Grapes Charges Act* 1929–66 and increased the maximum rates of levy on grapes delivered to wineries and distilleries from $1.50 per ton for fresh grapes to $2.50 per ton, and from $4.50 per ton for dried grapes to $7.50 per ton.

TOTAL FOR YEAR: 102 Acts.

CHAPTER 4

DEFENCE

Department of Defence

Functions of Department of Defence

The functions of the Department of Defence include: defence policy; joint Service matters and matters having an inter-departmental defence aspect; the financial requirements of defence policy and the allocation of the funds made available; the supply aspect of defence policy including the review of production programmes and capacity; important matters of policy or principle affecting the Defence Forces and their requirements, including the strength, organisation and disposition of the forces, higher appointments in the Services, their weapons and equipment, and defence research and development.

Organisation, higher defence machinery, and the control of the joint Service machinery

The joint Service and inter-departmental advisory machinery of the Department consist of various committees and joint staffs headed by the Defence Committee, the Chiefs of Staff Committee, the Defence (Administration) Committee, and the Defence (Industrial) Committee.

The *Defence Committee* is a statutory body consisting of the Secretary, Department of Defence, who is Chairman; the Chairman of the Chiefs of Staff Committee; the Chiefs of Staff of the three Services; the Secretary, Prime Minister's Department; the Secretary, Department of the Cabinet Office; the Secretary, Department of External Affairs; and the Secretary to the Treasury. Its function is to advise the Minister for Defence on: the defence policy as a whole and the co-ordination of military, strategic, economic, financial, and external affairs aspects of defence policy; matters of policy or principle and important questions having a joint Service or an inter-departmental defence aspect; and such other matters having a defence aspect as are referred to the Committee by or on behalf of the Minister for Defence.

The *Chiefs of Staff Committee* meets regularly for the discussion of technical military matters on a joint service basis, and is responsible in peace for the preparation of military appreciations and plans. The functions of the *Defence* (*Administration*) *Committee* are the regular review of the progress of the Defence Programme, the co-ordination or integration of Service activities where appropriate in the interests of improved efficiency and economy, and the improvement of methods and organisation.

The *Defence* (*Industrial*) *Committee* co-ordinates and makes recommendations regarding the capabilities of Australian industry to meet the material requirements of the Services in peace and war. Members of the Defence Business Board are co-opted as necessary for specific subjects. The *Defence Business Board* is constituted to advise on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Programme. The Board comprises businessmen who serve in a part-time honorary capacity. Three of the members also serve as business advisers to the separate Service Departments.

Recent years have seen a progressive re-organisation of aspects of defence administration to improve efficiency and keep pace with present requirements. The Defence (Industrial) Committee was established in 1969 and replaced two previous committees. Following a review of intelligence arrangements, a new Joint Intelligence Organisation was established recently in the Department of Defence. The new Organisation, which provides the intelligence assessments on which defence, strategic and eventually programming decisions are made, integrates the former Joint Intelligence Bureau of the Defence Department and certain sections of the Service Intelligence Directorates.

New Joint Planning arrangements, involving a series of staffs comprised of service personnel drawn from the Service departments, together with civilian officers of the Defence and External Affairs Departments, are now fully operative. Planning and policy formulation, as well as management, are being aided by the development of the techniques of systems analysis and programme budgeting. The Defence Science organisation now established within the Department of Defence is making a significant contribution to defence planning and policy formulation in the wider sense, as well as co-ordinating the research and development work necessary to support the Services generally.

The first course at the new Australian Joint Services Staff College commenced in January 1970. Attended by senior officers of the Armed Services and appropriate civilian departments and including students from New Zealand, the six-month course extends beyond purely military matters to include studies on socio-economic-political aspects, countries to our North and modern management practices. The objective is to produce officers well equipped for higher command and staff appointments.

Basis of current defence policy

The primary aim of Australian defence policy is to ensure the security of Australia and her Territories against external attack.

Because of the close link between Australian security and wider regional security, Australian policy stresses not only immediate direct defence, but also progress and stability in nearby countries, particularly in the south-east Asian area. In concert with our major allies and in keeping with our resources, Australia continues to make an active military contribution to collective defence arrangements in the area—SEATO, ANZUS and the Five-Power arrangements in Malaysia and Singapore—with the aim of supporting secure and stable independent nation States in south-east Asia with which Australia can establish co-operative relations.

At present Australian forces are on active overseas service in South Vietnam, together with the United States and other allies.

Australia has long-standing defence links with Malaysia and Singapore. The Australian Government has announced that, with New Zealand, it would maintain forces of all arms in the area so long as their presence is actively desired by the two governments concerned. Their presence, and their participation in training and military exercises with Malaysian and Singaporean troops is intended to aid the development of the indigenous defence capacity of the two countries as well as providing additional security while that capacity is built up.

New Programming concept

The year 1969–70 marks the change from the period defence programme concept to a continuous 'rolling' programme. In addition, the forward view has been projected ahead for five years rather than for three years as in the previous fixed programmes.

Each year another year—the fifth year forward—will be added to the programme in conjunction with an annual review of defence plans and policies. Because of the continuity thus provided, the consideration of major defence investment proposals will progress continuously rather than in a peak of activity in either annual or triennial cycles.

At the same time proposals can be considered against the background of a five year projection of defence expenditure as a whole in relation to the pressure thus placed on financial and other resources.

Personnel strengths

Of the Army strength some 16,000 are national servicemen. The selective national service scheme is in its fifth year of operation and continues to be essential for the maintenance of Army strength.

PERSONNEL STRENGTHS OF DEFENCE FORCES, JUNE 1960 TO 1970

NAVY

Strength at June—	*Permanent forces*	*Citizen forces*	*Emergency reserves*	*Total*
1960	10,598	7,816	..	18,414
1961	10,722	7,770	..	18,492
1962	11,103	6,424	..	17,527
1963	11,663	5,433	..	17,096
1964	12,569	5,202	..	17,771
1965	13,503	3,762	443	17,708
1966	14,714	3,797	686	19,197
1967	15,893	3,931	793	20,617
1968	16,454	4,047	904	21,405
1969	16,943	3,971	1,114	22,028
Estimated strength at June 1970	17,360	4,170	1,390	22,920

PERSONNEL STRENGTHS OF DEFENCE FORCES JUNE 1960 TO 1970—*continued*

ARMY

Strength at June—	*Permanent forces* Australian Regular Army	*Permanent forces* Pacific Islands Regiment	*Citizen forces*	*Emergency reserves*	*Total*
1960	20,772	661	37,921	. .	59,354
1961	19,878	581	26,958	. .	47,417
1962	20,985	638	30,041	. .	51,664
1963	21,944	695	27,341	. .	49,980
1964	22,681	812	27,505	. .	50,998
1965	25,314	1,415	28,146	288	55,163
1966	32,702	1,732	32,046	662	67,142
1967	41,464	2,246	34,670	889	79,269
1968	42,944	2,406	35,762	1,031	82,143
1969	44,051	2,474	34,256	981	81,762
Estimated strength at June 1970	45,550	2,460	36,000	500	84,510

AIR FORCE

Strength at June—	*Permanent forces*	*Citizen forces*	*Emergency reserves*	*Total*
1960	15,743	764	. .	16,507
1961	15,592	671	. .	16,263
1962	15,815	765	. .	16,580
1963	15,840	788	. .	16,628
1964	16,564	926	. .	17,490
1965	17,720	724	26	18,470
1966	19,358	865	170	20,393
1967	20,130	1,059	303	21,492
1968	21,564	907	397	22,868
1969	22,712	902	467	24,081
Estimated strength at June 1970	23,660	900	750	25,310

Equipment

An amount of $290.5m was spent on equipment of a capital nature in 1968–69; this included $66.3m under credit arrangements with the United States Government. An amount of $204.1m is expected to be spent in 1969–70 of which $36.8m will be under the credit arrangements with the United States Government. The reduction in expenditure in 1969–70 occurs mainly because part of the major equipment programme has been completed and for some of the projects some of the expenditure is being spread into later years.

The major equipment items received in 1968–69 by the Services included: ships (1 DDG Destroyer, 2 Oberon submarines and 12 Patrol boats); aircraft (12 Mirage, 32 Macchi, 10 Pilatus Porter, 26 helicopters, 7 HS748 navigator trainers); and a large quantity of military vehicles and equipment.

Approval has been given by the Government for orders to be placed in 1969–70 for such major capital items as a fast combat support ship, an oceanographic ship and a small hydrographic ship for the Navy; 8 landing craft and 45 radio relay terminals for the Army and 12 medium lift helicopters for the R.A.A.F. Further major equipment proposals are under consideration by the Government.

Research and development

The laboratories of the Department of Supply together with the Services' own technical establishments, have continued to work on projects and investigations in support of Service needs. A new agreement with the United Kingdom has been negotiated for the conduct of the Woomera Range and its associated technical facilities, and collaborative programmes in space tracking and other selected topics have been arranged with the U.S.A.

Defence expenditure

DEFENCE EXPENDITURE, BY DEPARTMENT OR SERVICE, 1964-65 TO 1969-70

($'000)

	Defence(a)	*Navy*	*Army*	*Air*	*Supply*	*Other*	*Total*
Actual expenditure—							
1964–65	9,683	136,008	199,962	185,930	66,744	10,656	608,983
1965–66	14,040	170,622	261,752	218,109	71,364	11,969	747,856
1966–67	18,081	202,607	352,837	281,011	80,312	15,240	950,088
1967–68	17,492	223,492	381,019	378,615	90,038	18,877	1,109,533
1968–69—							
Total	19,077	232,327	410,621	382,559	93,017	27,096	1,164,697
less United States credits	..	15,670	13,839	61,048	655	..	91,212
Payments from appropriations	19,077	216,657	396,782	321,511	92,362	27,096	1,073,485
Estimated expenditure—							
1969–70—							
Total	23,524	239,252	403,098	312,741	95,070	30,380	1,104,065
less United States credits	..	13,208	5,479	31,452	543	..	50,682
Payments from appropriations	23,524	226,044	397,619	281,289	94,527	30,380	1,053,383

(*a*) Includes defence aid for Malaysia and Singapore.

Logistic arrangement with United States Government

A logistic arrangement agreed with the United States Government in respect of Australian equipment purchases continues to operate. The logistic arrangement is in effect a 'package deal' covering all the items required instead of negotiating each separate purchase as it arises, and by this method Australia has obtained more advantageous financial terms together with assurances of better delivery dates to meet our requirements. Under this arrangement, instead of paying for the equipment roughly in line with deliveries, the Government is enabled to spread payments over an extended period.

Reserve and Citizen Forces

Citizen and Reserve Forces may be called out by proclamation for continuous full-time service in a 'Time of Defence Emergency'. The particular circumstances giving rise to the proclamation of a time of defence emergency could be varied, but would occur in a situation where the Regular Forces needed the full-time support of the Citizen and Reserve Forces in hostilities short of general war.

The three Services also have volunteer Emergency Reserves which may be called out for continuous full-time service when they are needed. These reserves provide a ready means of supplementing and reinforcing operational units.

Australian forces serving overseas

In response to an invitation of the Government of South Vietnam Australia has provided forces since 1962 to assist in the defence of that country. The number of men involved was increased progressively reaching 8,000 in the first half of 1968, and has remained at approximately that level during 1969. Details of the increase between 1962 and 1968 are outlined in Year Book No. 53, and Year Book No. 55.

In December 1969, the Australian force in Vietnam comprised:

Navy—a destroyer, a clearance diving team, and pilots, ground crew, and supporting personnel.

Army—a task force of three infantry battalions, a Centurion tank squadron, artillery field regiment and their combat support units; a logistic support force; and a 99-man Army Training Team.

Air Force—a squadron of eight Canberra bombers, a squadron of sixteen Iroquois helicopters, and a squadron of six Caribou transport aircraft.

In Malaysia and Singapore progressive arrangements and redeployments of Australian forces are taking place, which will be completed by the end of 1971. The forces which Australia, together with New Zealand, will retain in the area will consist of:

Navy—two naval ships, one R.A.N. and the other R.N.Z.N., which will be present in the area at all times.

Army—in conjunction with New Zealand a ground force based on a two battalion organisation, to which Australia will contribute approximately 1,200 men, located in Singapore and with one company detached on rotation to Butterworth.

Air Force—two squadrons of Mirage fighters, from which eight aircraft will be detached to Tengah in Singapore, and the remainder based at Butterworth in Malaysia.

Defence support aid

In support of Australia's strategic policy of contributing to the common defence of south-east Asia, the Government provides substantial financial aid to our Asian allies. This aid is given in the forms of civil aid and technical assistance, as well as direct defence assistance to support the armed forces of these countries and to increase their defence capability.

Under the SEATO Aid programme assistance to the extent of $2,400,000 will be provided for South Vietnam, Thailand, Pakistan, and the Philippines during 1969–70. This will include material assistance, the training of service and civilian personnel both in their home countries and in Australia, and, in the case of South Vietnam, special aid in the medical and developmental fields and civic action by the Australian Force Vietnam.

Malaysia is also being further assisted to strengthen its defence capability by the extension of the aid programme commenced in 1964 under which the Australian Government has provided some $45 million to date. This aid to Malaysia includes ammunition, military vehicles, weapons, small craft, engineer equipment, and general stores. Malaysian servicemen will continue to be trained in Australia and in the Malaysian area, and the seconding of Australian servicemen to the Malaysian armed forces will also be continued. Additionally, in 1969 Australia made a gift of ten Sabre aircraft, spares, ground support equipment and a training simulator to Malaysia and is maintaining a Support Flight of over 100 R.A.A.F. instructors and other personnel at Butterworth to provide training for the R.M.A.F. in both flying and ground support. Defence aid to Singapore comprises engineer equipment, field ambulances, vehicle maintenance equipment, and 2½ ton four-wheel-drive trucks. Army training courses will also be provided in Australia for Singapore services personnel.

Naval defence

Prior to 1901, naval defence systems were organised under the State Governments. Information regarding these systems is given in Year Book No. 2, page 1084. An outline of the development of Australian naval policy is given in Year Books No. 3, page 1060, and No. 12, page 1012. An account appears in Year Book No 15, pages 921–3, of the building of the Australian Navy, its costs, the compact with the Imperial Government, and other details. The growth and the activities of the Royal Australian Navy during the 1939–45 War are shown in Year Book No. 36, pages 1023–7.

Under the provisions of the Commonwealth of Australia Constitution Act the Minister of State for the Navy administers the Department of the Navy. Under the *Naval Defence Act* 1910–1966 the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister as President, four Naval Members, and the Secretary to the Department of the Navy.

Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers. A liaison staff is also maintained by the Royal Australian Navy in Washington, and a comprehensive exchange of information is provided by this link. Staff courses in the United States are also attended by officers of the Royal Australian Navy.

Ships of the Royal Australian Navy

In commission, December 1969: *Melbourne*—aircraft carrier; *Sydney*—transport; *Supply*—oiler; *Stalwart*—destroyer tender; *Perth, Hobart* and *Brisbane*—guided missile destroyers; *Vampire, Vendetta, Duchess, Anzac*—destroyers; *Yarra, Parramatta, Stuart, Derwent, Queenborough*—destroyer escorts; *Teal, Ibis*—coastal minesweepers; *Curlew*—coastal minehunter; *Moresby, Paluma*—surveying ships; *Diamantina, Kimbla*—oceanographic research ships; *Oxley, Otway, Onslow, Ovens*—submarines; *Attack, Aitape, Acute, Adroit, Advance, Archer, Arrow, Assail, Aware, Barbette, Barricade, Bayonet, Bombard, Buccaneer, Ladava, Lae, Madang, Samarai*—patrol boats; *Banks, Bass*—auxiliaries; *Jeparit*—transport.

In reserve, December 1969: *Tobruk*—destroyer; *Quiberon, Quickmatch*—destroyer escorts; *Gascoyne, Barcoo*—oceanographic research ships; *Culgoa*—barrack ship; *Hawk, Gull, Snipe*—coastal minesweepers; *Ardent, Bandolier*—patrol boats; *Castlemaine*—ocean minesweepers; *Sprightly*—fleet tug; *Kara Kara*—boom gate vessel.

On service overseas. During the year ended December 1969 the following ships served in south-east Asian waters as units of the Commonwealth Strategic Reserve with headquarters in Singapore: *Vampire, Stuart, Yarra, Duchess, Derwent.* The following ships served in support of the allied forces in South Vietnam: *Perth, Sydney, Brisbane, Vendetta, Jeparit.*

The ships *Melbourne, Supply, Parramatta, Hawk, Gull, Curlew, Attack, Anzac, Stalwart, Ovens, Queenborough, Otway, Diamantina, Aitape, Lae, Duchess* also made overseas visits.

Fleet Air Arm

The Fleet Air Arm of the Royal Australian Navy maintains three front line squadrons for embarkation in the operational carrier H.M.A.S. *Melbourne*. These squadrons currently consist of Skyhawk A4-G fighter/ground attack aircraft, Tracker S2-E anti-submarine aircraft, and Wessex MK. 31B submarine helicopters. Four training and support squadrons are based at the Naval Air Station H.M.A.S. *Albatross* at Nowra, New South Wales. Other aircraft operated by the Navy are the Scout helicopter in *Moresby*, Iroquois helicopter (training and search and rescue), Dakota, Vampire trainer, and Sea Venom (target towing). The latter two aircraft will be replaced by the Macchi MB326H in October 1970.

Ship construction and repairs

There are two naval dockyards, one at Garden Island, New South Wales, and one at Williamstown, Victoria. Also, the dockyard at Cockatoo Island, which is operated by the Cockatoo Docks and Engineering Company Pty Ltd by agreement with the Commonwealth, carries out considerable naval work. All three dockyards carry out ship refitting for the Navy.

Included in the present ship construction plan is the building of two destroyer escorts, one each at Cockatoo Island (*Torrens*) and Williamstown (*Swan*) Dockyards. It is expected that *Swan* will enter service in 1970 and *Torrens* in 1970–71. Construction in the United Kingdom of four Oberon Class submarines has been completed. Twenty 100-foot patrol vessels were built by Evans Deakin and Co. Pty Ltd, Brisbane, Queensland, and Walkers Ltd, Maryborough, Queensland (ten by each contractor). H.M.A.S. *Melbourne* underwent an extended refit during 1968 at Garden Island Dockyard. The Daring Class destroyers *Vendetta* and *Vampire* are to have an extended refit, commencing with *Vampire* in 1970. The anti-submarine guided weapon Ikara, which has been designed and developed in Australia, has been fitted into *Perth, Hobart, Yarra, Parramatta, Stuart* and *Derwent* and is being fitted in *Brisbane* at present. Both *Swan* and *Torrens* will be fitted with Ikara.

Personnel, entry, training, women's services, reserves

Personnel. The estimated strength of the Royal Australian Navy in relation to personnel borne for full-time duty for 1969–70 is 17,693. At 30 November 1969 the actual strength of personnel borne for full-time duty was 1,924 officers and 15,238 sailors, which includes 200 officers and sailors of the Citizen Naval Forces and 25 officers and sailors of the Royal Australian Navy Emergency Reserve.

Naval college. The Royal Australian Naval College, H.M.A.S. *Creswell*, is at Jervis Bay. The College was established to provide trained officers for the R.A.N. Junior entry to the College is at the age of fifteen to seventeen years, and senior entry at a maximum age of twenty years. Subsequent training as midshipmen and sub-lieutenants is in ships of the fleet, at universities or technical colleges, and at Royal Navy training establishments in the United Kingdom. In November 1969 there were one hundred and six cadet midshipmen under training.

Direct entry into Navy. To meet increasing requirements for officers, direct entries are accepted into the Royal Australian Navy. Short service commissions of seven years are granted on completion of training as seamen or aircrew officers to suitable applicants who have completed their secondary schooling and who are over seventeen years of age and under twenty-three years of age for seamen applicants, and under twenty-four years for aircrew applicants. Other direct entries may be approved outside these age limits from persons with appropriate qualifications and experience.

Opportunities exist for university undergraduates studying medicine, dentistry, mechanical engineering, electrical engineering, or aeronautical engineering to enter the R.A.N., and on successful completion of their studies to commence short or full-time service in the Navy. Fully qualified doctors, dentists, mechanical or electrical engineers, and instructors may also enter the R.A.N. directly if they are of the appropriate age.

Training establishments. H.M.A.S. *Cerberus* at Westernport, Victoria, is the main training establishment for adult sailors in the permanent naval forces, while several advanced training schools are established in New South Wales. The period of initial engagement for sailors varies from six years for tradesmen entry to nine or twelve years, and on completion sailors may re-engage for shorter periods up to the age of fifty.

H.M.A.S. *Nirimba* at Quakers Hill, New South Wales, is the naval school for apprentices. It provides secondary education, as well as technical training in trades, to boys aged fifteen to seventeen and a half years. The school was established in 1956 to meet the R.A.N.'s increasing demand for highly skilled tradesmen. In November 1969 there were 603 naval artificer apprentices under training. H.M.A.S. *Leeuwin* at Fremantle, Western Australia, is the junior recruit training establishment. Entrants must be aged between fifteen and a half and sixteen and a half years. Training lasts one year and instruction is mainly academic, the remaining time being devoted to basic naval and disciplinary training. On completion of the course sailors are posted for a period of sea training, after which they proceed to technical and specialist courses. In November 1969 there were 606 junior recruits undergoing training.

Women's Services. The present Women's Royal Australian Naval Service was inaugurated in January 1951. The numbers serving in shore establishments in November 1969 were 29 officers and 651 Wrans. The Royal Australian Naval Nursing Service was reconstituted in November 1964, and its strength in November 1969 was 20 officers.

Emergency Reserve. In November 1964 approval was given to form the Royal Australian Naval Emergency Reserve to provide a readily available source of trained manpower which may be called on for continuous full-time service. The authorised establishment of this force is 2,000 officers and sailors. At 30 November 1969 the strength of the reserve available for mobilisation was 72 officers and 1,086 sailors, which excludes 3 officers and 22 sailors serving full-time. Members are required to complete thirteen days' training annually and are paid an annual bounty.

Citizen Naval Forces. The Citizen Naval Forces consist of the R.A.N. Emergency List, Royal Australian Fleet Reserve, Royal Australian Naval Reserve, Royal Australian Naval Reserve (Seagoing), Royal Australian Naval Volunteer Reserve, and Women's Royal Australian Naval Service Reserve. The authorised establishment of the combined forces is 10,000. At 30 November 1969 there were 1,169 officers and 2,857 sailors in the Citizen Naval Forces. These figures exclude 108 officers and 92 sailors serving full-time. The R.A.N.R. is the training reserve of the Citizen Naval Forces. Members carry out weekly training and thirteen days' continuous training annually; sailors engage for periods of three years. Other reserves do not normally carry out part-time training, but members may volunteer for periods of annual training and for periods of full-time service with the R.A.N. A Women's Royal Australian Naval Service Reserve consisting of ex-permanent naval forces W.R.A.N.S. officers and W.R.A.N.S. was authorised in June 1968 and enlistments commenced in mid-November 1968.

Military defence

A detailed historical account of the Australian defence forces prior to federation appears in Year Book No. 2, pages 1075–81. *See also* Year Book No. 12, page 999.

Commonwealth systems

Under the terms of the Commonwealth of Australia Constitution Act the Commonwealth took over control of defence matters in March 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogenous Army in 1902 up to the re-establishment of the Military Board and the organisation of Commands after the 1939–45 War *see* Year Book No. 46 and earlier issues.

National Service Training was introduced in 1951 and suspended in 1959–60. In November 1964 the Government announced that National Service was to be re-introduced from June 1965. The scheme provides for a period of two years full-time duty in the Regular Army followed by three years in the reserve. National Service registrants who are members of the Citizen Military Forces or who join prior to the ballot may elect to serve in the C.M.F. for a total of five or six years, depending on length of previous service, as an alternative to full-time continuous National Service Training. Special C.M.F. units have been formed to provide for those persons who wish to serve in the C.M.F., but who are unable to do so in normal units, because of remote location, etc.

Organisation

Army Headquarters is responsible for the policy and control of the Australian Army. The Military Board consists of the Minister for the Army, President; the Chief of the General Staff; the Adjutant-General; the Quartermaster-General; the Master-General of the Ordnance; the Deputy Chief of the General Staff; the Citizen Military Forces Member; and the Secretary, Department of the Army. After the 1939–45 War, Command Headquarters were established to implement Army Headquarters policy and to command and administer those units placed under their authority. Command Headquarters are established in the capital cities of Australia and Papua-New Guinea. The geographic extent of Commands is as follows.

Northern Command—the State of Queensland.

Eastern Command—the State of New South Wales, less those parts included in Southern and Central Commands.

Southern Command—the State of Victoria and part of southern New South Wales.

Central Command—the State of South Australia, plus a portion of south-western New South Wales.

Western Command—the State of Western Australia.

Tasmania Command—the State of Tasmania.

Northern Territory Command—the Northern Territory.

Papua-New Guinea Command—the Territory of Papua-New Guinea.

The Army is divided into the Field Force, Forces in Papua-New Guinea, and the Australian Support Area, with both Regular and Citizen Military Forces elements in each. The basic formation of the Field Force is the division, which consists of nine infantry battalions with supporting arms and services units. Within the division three task force headquarters can command varying combinations of divisional units. The substantial parts of the combat elements of one Regular and two C.M.F. divisions have been raised, together with logistic support units. The Regular element of the Forces in Papua-New Guinea consists of two battalions of the Pacific Islands Regiment with a number of supporting units. An infantry battalion forms the major C.M.F. element. The Australian Support Area provides the training, administrative, and command structure on the mainland.

At 31 December 1969, units of the Australian Regular Army were deployed overseas as follows. In Vietnam a task force of three infantry battalions with supporting units, including aircraft support provided by the Royal Australian Air Force, was serving at the invitation of the Government of that country. In addition there was the major part of an infantry battalion group stationed in Singapore. This battalion group was in the process of moving from its previous location in Malaysia.

Personnel, training, women's services, cadets

Personnel. The effective strength at 26 November 1969 was: Australian Regular Army, 46,841 (including 2,337 Pacific Islanders, 317 Citizen Military Forces on full-time duty, and 984 Women's Services); Citizen Military Forces, 33,026.

Staff College. Until 1938 the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938 an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945 the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946 the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Commonwealth training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. The course is held annually and is of twelve months' duration. The normal intake is seventy students, and on successfully completing the course an officer is awarded the symbol 'psc'. The course is designed to train selected officers for appointments in all branches of the staff in peace and war and to prepare them to assume, after experience, command and higher staff appointments.

Included in the 1970 course will be students from Canada, Ghana, India, Indonesia, Malaysia, New Zealand, Pakistan, Philippines, South Korea, Thailand, United Kingdom and United States of America. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force, and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the Commonwealth of Nations, liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom, the United States of America, and Australia. An instructor is also provided by New Zealand.

Royal Military College. The Royal Miltary College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The course is four years of military and academic studies. The first three years are primarily academic and the fourth year military. Following affiliation with the University of New South Wales a Faculty of Military Studies was introduced in 1968. Cadets who meet the requirements for admission to the Faculty may take a course, leading to the award of a degree in Military Studies by the University of New South Wales in one of the following, Arts, Applied Science or Engineering. Cadets not admitted to the Faculty take a diploma course appropriate to their educational background. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces. In 1967 one Thai cadet commenced training at the College.

Officer Cadet School. The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces and civilians between the ages of eighteen and a half and twenty-two and a half are eligible to apply for entrance. A special entry provides for candidates up to twenty-four and a half years. The course lasts for forty-four weeks, and on graduation cadets are appointed second-lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted before being posted to regimental duties. The Officer Cadet School also trains officers on occasions for Malaysia, New Zealand, Thailand, the Philippines, Brunei and the Pacific Islands Regiment.

Officer Training Unit. An Officer Training Unit has been established at Scheyville, New South Wales, which is responsible for the training of National Service officers.

Women's Royal Australian Army Corps School. The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses, and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between nineteen and a half and thirty-two years of age, or civilians between nineteen and a half and thirty years of age. The course is of twenty-seven weeks' duration and on graduation cadets are appointed lieutenants in the Royal Australian Army Nursing Corps or the Women's Royal Australian Army Corps.

Army Apprentices' School. The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army and to form a background for an Army career with prospects of promotion. The course is open to youths between the ages of fifteen and seventeen years and provides training in a number of highly skilled trades. A three-year course of intensive theoretical and practical work at the Apprentices' School is followed by one year of training in an appropriate Army workshop or technical unit. At the end of their third year apprentices take the Victorian Apprenticeship Commission's final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life when they eventually leave the Army. In addition to trade and military training the Apprentices' School provides general educational facilities up to the School Leaving Standard.

Other schools. Army schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements, and to produce trained instructors. Courses at Army schools are conducted for members of both the Australian Army and the Citizen Military Forces.

The following Army schools have been established: Jungle Training Centre, Armoured Centre, School of Artillery, School of Military Engineering, Transportation Centre, School of Military Survey, School of Signals, Infantry Centre, Army Aviation Centre, Army Intelligence Centre, Royal Australian Army Service Corps Centre, Royal Australian Army Medical Corps School of Army Health, Royal Australian Army Ordnance Corps Centre, Royal Australian Electrical and Mechanical Engineers' Training Centre, Royal Australian Army Provost School, School of Music, Air Support Unit (Army Component), and Air Movement Training and Development Unit (Army Component).

Women's Services. In July 1950 approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment commenced into the Royal Australian Army Nursing Service in November 1950 and into the Australian Women's Army Corps early in 1951. In February 1951 the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June 1951 the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprise two Corps only, the Royal Australian Army Nursing Corps and the Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces, and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command and Papua-New Guinea Command. Companies of the Royal Australian Nursing Corps are located in each Command excluding Northern Territory Command and Papua-New Guinea Command.

Australian Cadet Corps. The Australian Cadet Corps is a voluntary organisation. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, does not, however, form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout the Commonwealth and Papua and New Guinea, except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of fourteen years, and cadets, who, in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, cadet under-officers, warrant and non-commissioned officers on an authorised establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units. The establishment of the Corps is 46,000 all ranks, and at 15 October 1969 comprised 346 School Cadet units with a posted strength of 41,213, all ranks.

Air defence

A statement regarding the preliminary steps taken in connection with the development of air defence appears in Year Book No. 18, page 610, and one on the expansion and development and type of operations of the Royal Australian Air Force during the 1939–45 War in Year Book No. 36, page 1027. Details of the current defence expansion as it affects the R.A.A.F. were outlined by the Prime Minister in his speech in the House of Representatives on 8 November 1965.

Higher organisation

The Air Board is responsible to the Minister for Air for the control, organisation, and administration of the Royal Australian Air Force and is constituted as follows: Chief of the Air Staff, Air Member for Personnel, Air Member for Supply and Equipment, Air Member for Technical Services, and the Secretary, Department of Air.

The Air Board administers and controls R.A.A.F. units in Australia and its Territories through two commands, Operational Command and Support Command. The guiding principles of the command organisation within Australia are to decentralise day-to-day operating activities as far as possible and to streamline the force and make it as efficient as possible. The operational units overseas, working within the broad directives issued by the Air Board, comprise the R.A.A.F. component of the British Commonwealth Strategic Reserve located at Butterworth in Malaysia, and the R.A.A.F. component of the Australian forces in South Vietnam.

The members of the Air Board and their staffs are located at the Department of Air in Canberra. An R.A.A.F. representative is located in London, and air attaches are located in Djakarta, Saigon, Paris, and Washington. *Operational Command* is responsible for the command of operational units and the conduct of their operations within Australia and its territories. *Support Command* is responsible for the recruitment and training of personnel, and the supply and maintenance of service equipment.

Organisation of units

Bases. Each command is established with the units necessary to carry out its allotted function. There is no fixed rule in relation to the number and types of units within each command, as this depends upon the nature of its present and future responsibilities. Where possible, units having similar functions or requiring similar facilities are located together, and the geographical locations are known as bases.

Formations—comprising a headquarters unit to control the activities of a number of units at one location; each formation has a base squadron which provides common services to all units at the location.

Flying squadrons—strike reconnaissance, air defence, ground attack, medium and short range transport, helicopter, and maritime reconnaissance squadrons which undertake the operational flying and in conjunction with operational conversion units, the operational flying training commitments of the R.A.A.F.

Operational conversion units—specialising in operational conversion training of aircrew for the strike reconnaissance, air defence, and ground attack squadrons.

Aircraft depots—specialising in major overhaul, etc., of aircraft and equipment.

Stores depots—centrally located depots to which stores and equipment ordered by the R.A.A.F. are delivered for distribution to units.

Airfield construction squadron—specialising in airfield construction tasks in support of the R.A.A.F. operational component within Australia and the Territories.

Telecommunications units—responsible for the communications services of the R.A.A.F.

R.A.A.F. Hospitals—hospitals in Australia and at Butterworth providing medical services for the R.A.A.F.

Flying and ground schools and units—schools and units specialising in the aircrew and ground staff training required by the R.A.A.F.

R.A.A.F. Diploma Squadron and R.A.A.F. Academy—training units, to diploma and university degree level respectively for officer cadet entrants to the R.A.A.F.

R.A.A.F. Staff College—trains specially selected R.A.A.F. officers for higher staff and command posts.

Aircraft

The R.A.A.F.'s strike reconnaissance force is equipped with Canberras, and the air defence and ground attack squadrons are equipped with the Mirage 111-O. Transport aircraft currently in use are Hercules C130A and E, Caribou, Dakota, Mystere 20, HS748, and BAC111. The two helicopter squadrons operate the Iroquois and the two maritime squadrons operate Neptune SP2H and Orion P3-B aircraft. Aircraft used for training are the Winjeel, Macchi, HS748, Sabre, and Mirage 111-O.

Personnel, reserve, women's services

At 31 December 1969, the authorised Permanent Air Force establishment was 24,250 and the Citizen Air Force, 1,080; the enlisted strength was Permanent Air Force 21,542 and Citizen Air Force 928, while the strength of the General Reserve was 8,380. The Permanent Air Force figures include the Women's Royal Australian Air Force, which has an establishment of 1,044 and strength of 898, and the R.A.A.F. Nursing Service with an establishment of 105 and strength of 85.

Department of Supply

For information relating to the creation of the Department of Supply and its development up to 1959 *see* Year Book No. 51, page 1204, and earlier issues. On 18 December 1959 the Department assumed responsibility for the operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration. On 29 March 1962 Australia became a foundation member of the European Launcher Development Organisation, and the Department accepted responsibility for the test firing of the launching rocket for that Organisation's experimental satellite, using the facilities of the Woomera Rocket Range.

On 1 May 1968 the Department took over the administration of the Antarctic Division from the Department of External Affairs.

Functions of Department

The functions of the Department of supply include the following.

Defence research and development, including the operation of the Joint United Kingdom–Australia Weapons Research Project, and Australian research and development.

Operation and management of factories, workshops, and undertakings concerned in the production of munitions (including aircraft), clothing, canvas-ware, and other defence goods.

Manufacture, acquisition, provision, and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces.

Arrangement of contracts for the supply of goods and the performance of services.

Operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration.

Test firing of the launching rocket for the European Launcher Development Organisation's experimental satellite, using the facilities of the Woomera Rocket Range.

Acquisition, maintenance, and disposal of strategic materials.

Planning and establishment of manufacturing facilities for the production of munitions and other defence goods.

Investigation and development of Australian sources of supply in connection with defence.

Sale or disposal of surplus Commonwealth property other than land or buildings.

Provision of Commonwealth transport facilities outside the Australian Capital Territory and the Northern Territory.

Provision and control of stores required for or in connection with matters administered by the Department of Supply, and general storage for other Departments as required.

Arrangements for ascertaining costs and the control and limitation of profits in connection with the production of munitions and other defence goods.

Organise expeditions and establish and maintain stations in the Antarctic for the purposes of exploration and conducting scientific studies.

The Minister for Supply administers the *Supply and Development Act* 1939–1966, except in so far as it contains the building (*see also* the chapter Transport and Communication), repair, and maintenance of merchant ships and the building, extension, alteration, repair, and maintenance of shipyards, drydocking, and repair facilities for merchant ships.

The Minister for Supply also administers the *Antarctic Treaty Act* 1960, the *Australian Antarctic Territory Acceptance Act* 1933, the *Australian Antarctic Territory Act* 1954–1963, *Heard Island and McDonald Islands Act* 1953–1963.

Research and Development

The Research and Development Division is responsible for research and scientific development in relation to war *matèriel*, including the operation of the Joint United Kingdom–Australia Weapons Research Project and support of space research programmes for ELDO and NASA. The headquarters of the Division is situated in Canberra, and the following establishments are included in the Division: (*a*) Weapons Research Establishment, Salisbury, South Australia; (*b*) Defence Standards Laboratories, Maribyrnong, Victoria; Woodville North, South Australia; and Alexandria, New South Wales; (*c*) Aeronautical Research Laboratories, Fishermen's Bend, Victoria.

Weapons Research Establishment

The establishment has four main sections, namely the Trials Wing, the Space Physics Wing, the Weapons Research and Development Wing, and the Engineering Wing. The Trials Wing is concerned with the operation, development, and instrumentation of the Woomera Range, and the planning, execution, and assessment of trials. The Space Physics Wing conducts research and development on behalf of the Australian Services and in support of the United Kingdom—Australia Joint Project.

The Weapons Research and Development Wing is concerned primarily with Australian initiated defence research and development. The Engineering Wing provides engineering design and development and support facilities for other Weapons Research Establishment wings and research establishments and undertakes tasks for the Australian Services.

United States space projects

Agreements have been signed by the Australian and United States Governments for a co-operative programme for the establishment and operation in Australia for space vehicle tracking stations. The agencies for the Australian and American Governments are the Department of Supply and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space programme the stations are designed to track spacecraft in their orbits around the earth or on their journey into space, to receive telemetered data from the vehicle, and to issue radio commands controlling the vehicle's manoeuvres. The Department of Supply is responsible for managing, staffing and operating the stations on behalf of NASA. The stations which are now in operation are at:

Island Lagoon near Woomera (deep space probes and optical tracking of scientific satellites);
Carnarvon in Western Australia (manned space flights and scientific satellites);
Tidbinbilla in the A.C.T. (deep space probes and manned space flights);
Orroral Valley in the A.C.T. (scientific satellites);
Honeysuckle Creek in the A.C.T. (manned space flights, particularly the 'man on the moon' Apollo project);
Cooby Creek near Toowoomba, Queensland (applications technology satellites).

Work has commenced on the construction of a 210 ft tracking antenna at Tidbinbilla, A.C.T.

An extensive communications system links the tracking stations with the control centres in the United States. At all six stations the responsibility is vested in a station director who is a senior officer of the Department of Supply. Tidbinbilla, Honeysuckle Creek and Carnarvon, together with the C.S.I.R.O.'s 210 ft radio telescope at Parkes, played an important part in the communications network during the successful Apollo 11 and 12 moon landing mission in 1969.

Under the Australian Government's policy of using the resources of private industry wherever possible, contracts for operation and maintenance services at the stations have been let as follows: Hawker Siddeley Electronics (Tidbinbilla and Island Lagoon), Amalgamated Wireless (A'asia) Ltd, (Carnarvon and Cooby Creek), E.M.I. Electronics (Australia) Pty Ltd, (Orroral Valley), and Standard Telephones and Cables Pty Ltd (Honeysuckle Creek).

NASA space projects requiring Australian participation are as follows.

Manned space flights

Project Apollo—landing of men on moon and their return to earth.

Scientific and applications satellites

Large multiple experiment scientific satellites (Orbiting Geophysical Observatories; Orbiting Astronomical Observatories, etc.). Operations satellites for meteorology (Tiros).

Applications technology satellites for communications, navigation, radio propagation, etc. (ATS).

Deep space probes

Mariner—probes to Mars, Venus, etc.
Pioneer—interplanetary investigations.

Defence Standards Laboratories

This establishment provides a scientific service to the Defence Services, Department of Supply factories and other authorities generally within the field of chemistry, physics, metallurgy and engineering and to a limited extent, in the fields of biochemistry and physiology. It also undertakes background research appropriate to its responsibilities and of significance to the defence requirements of Australia.

Aeronautical Research Laboratories

In the aeronautical field this establishment undertakes research and development work on specific defence projects, acts as consultant and conducts investigations for the Services, Government Departments or industries engaged on defence work. Background research related to the execution of its responsibilities and of significance to the defence requirements of Australia is also undertaken.

Production of munitions

The Department is responsible for the production of a wide range of munitions required by the Armed Services. Production is carried out substantially in Government factories, although some orders, mainly for components, are placed with private industry.

The following Government factories are currently in operation: Ammunition—Footscray, Victoria; Explosives and Filling—Albion and Maribyrnong, Victoria; Mulwala and St Mary's, New South Wales; Ordnance—Maribyrnong, Bendigo, and Port Melbourne, Victoria; Small Arms—Lithgow, New South Wales; Clothing—South Melbourne, Victoria.

The Ammunition Factory produces the complete round of small arms ammunition and also components for larger calibre gun ammunition, including empty cartridge cases, electronic and mechanical fuses, and primers. The Explosives Factories produce the various types of explosive compositions and propellants required for gun ammunition, rockets, and guided missiles. The Filling Factory at St Mary's fills and assembles into complete rounds of ammunition (other than small arms ammunition) the empty components and materials supplied by the other munitions factories and by private industry.

The Ordnance Factories at Maribyrnong and Bendigo are equipped to produce heavy ordnance equipment, such as naval guns and gun mountings; large turbine gears; steel shell bodies; empty rocket motors for guided missiles; trailers and tank transporters; and other items requiring heavy engineering capacity. As well as work for the Services, the Bendigo Factory produces components for marine diesel engines for Australian shipping and large heavy engineering items for the coal, cement, and steel industries.

The Port Melbourne Factory builds and services large marine diesel engines for the Australian shipbuilding industry. Major forgings and fabrications for these engines are produced at the Ordnance

Factories at Maribyrnong and Bendigo. The Small Arms Factory is equipped to produce the rifles and other small arms required by the Services. Current production is the 7.62-mm automatic rifle, for which orders have also been received from overseas, and the 9-mm carbine which serves as the infantry light machine gun. The Clothing Factories make uniforms and clothing for the three Services, the Postmaster-General's Department and some other Commonwealth authorities.

Production of aircraft and guided weapons

Production both in Government factories and in industry of military types of aircraft and aero-engines and of other aircraft components required by the Royal Australian Air Force is administered by the Department of Supply. Planning of capacity and the negotiation of contractual arrangements concerning aircraft modification, repair and overhaul, and for the supply of spare parts and airborne equipment for the R.A.A.F., the R.A.N., and the Army are also functions of the Department.

The following factories are operated by the Department: The Government Aircraft Factory at Fishermen's Bend and the Final Assembly Workshops and Test Airfield at Avalon, Victoria, and the Machine Shop at Northfield, South Australia. During 1968 the French Mirage supersonic fighter aircraft production programme for the R.A.A.F. was completed. The current aircraft production programme comprises the Jindivik radio-controlled target aircraft, which has been or is being supplied to Britain, Sweden, and the United States, as well as to the Weapons Research Establishment and the Royal Australian Navy. Apart from the Government Aircraft Factory, the Commonwealth Aircraft Corporation Pty Ltd is the only major aircraft manufacturer in Victoria. The Corporation is the prime contractor for the Australian production for the R.A.A.F. of the Italian Macchi jet trainer and for the production of the British Viper engine that powers this aircraft.

Other major activities carried out in the Government factories or by various private contractors are the manufacture of airframe and engine spare parts; the overhaul, repair, and modification of military aircraft and engines currently in service with the R.A.A.F., R.A.N., and Army; and the reconditioning and servicing of aircraft instruments and other ancillary equipment.

The production of the Ikara anti-submarine missile is continuing at the Government Aircraft Factory at Fishermen's Bend. Production of the complete Ikara system, covering broadly the missile, motor, propellants, guidance equipment, launcher, and magazine handling equipment, is a combined effort by departmental establishments and industry, directed and co-ordinated by the Department.

At St Mary's, New South Wales, a guided weapons repair facility has been established to repair and maintain the Tartar surface-to-air missile supplied by the United States for Australia's new missile destroyers. Later, the facility will be expanded to cater for other Service missiles.

Electronics supply

The Department is responsible for the technical aspects of production and procurement from Australian industry of telecommunications and electronic equipment for the Australian Services, for Commonwealth authorities such as Directorate of Civil Defence and for external aid programmes administered by the Department of External Affairs.

Some of the more important projects handled for the Services have included a ground to air high-frequency communications system for Air, high-frequency transmitters for Army, high-frequency transmitters and antennae for long-range Navy shore to ship communications, portable shelters for communications equipment for Air and medium-speed data transmission equipment for Army, Navy and Air.

A large contract has been arranged for the domestic development of micro-electronic devices. Other contracts have also been arranged to establish the reliability of Australian made electronic equipment and components.

Contract Board

The Contract Board, constituted under the *Supply and Development Act* 1939–1966, arranges for the performances of services and the purchase of supplies for the Naval, Military and Air Forces of the Commonwealth and for the Department of Supply. Upon request, the Board also arranges contracts on behalf of other Commonwealth departments and authorities. It also arranges disposal—by means of public tender, auction or otherwise—of all surplus or unserviceable Commonwealth-owned goods.

The Board comprises representatives of three Service Departments and of the Department of Supply. In each State there is a District Contract Board similarly constituted, which is authorised to exercise the functions of the Contract Board within specified financial limitations. The Contract Board has no attached contracting staff of its own, and while all contracts are arranged in the Board's name, its role is to decide the award of contracts in those cases where the value exceeds the delegated authority of District Contract Boards.

The Board's policies and procedures are administered by the Contracts Branch of the Department of Supply in Canberra.

CONTRACT BOARD ORGANISATION: PURCHASES AND REALISATIONS FROM DISPOSALS, 1967-68 AND 1968-69

($'000)

District Contract Board	*Purchases*		*Realisations from disposals*	
	1967–68	*1968–69*	*1967–68*	*1968–69*
New South Wales	29,512	48,393	2,681	2,956
Victoria	168,385	143,218	2,517	2,517
Queensland	5,765	7,024	820	1,007
South Australia	11,142	6,916	1,566	1,395
Western Australia	1,193	1,804	466	443
Tasmania	280	216	147	192
Total	**216,277**	**207,571**	**8,197**	**8,510**

Defence supply planning

The central planning authority of the Department is the Production Planning Branch, whose principal functions are:

- to study manufacturing capacity available for the Services' requirements in peace and war;
- to plan for and assist in the development of additional production capacity;
- to provide and administer reserve stock of materials and reserve pools of plant, equipment and other requirements needed for rapid expansion in the event of war;
- to prepare submissions on defence production preparedness to the higher defence machinery;
- to plan the organisation of industrial resources for defence production in war;
- to receive and allocate to appropriate departmental divisions all orders and procurement demands placed on the Department;
- to inform Service and other customers on all matters of price, delivery, and expenditure phasing of requirements allocated for satisfaction by the production divisions;
- to monitor achievement against departmental master delivery programmes;
- to provide advisory services in the field of materials supply and utilisation of Government factories and contractors engaged in the production of munitions requirements;
- to administer the national stockpile of strategic materials, equipment, tooling and components;
- to administer overseas aid programmes allocated to the Department;
- to develop commercial outlets for departmental products, and plans for the full use of production capacity, exploitation of inventions and protection of patents;
- to undertake commercial sales;
- to administer the Board of Management for Production; and
- to provide administrative services to the Industry Advisory Committees.

A series of Industry Advisory Committees has been established to advise the Minister and the Department of the ability of industry to meet the Services' *matèriel* requirements for mobilisation in war. The Committees are: Aircraft and Guided Weapons; Chemical; Electrical; Electronics and Telecommunications; Fibres, Textiles, Clothing, and Cordage; Leather and Footwear; Machine Tools and Gauges; Materials; Mechanical Engineering; and Rubber. Members of the Committees include industrialists of wide experience and the highest ability in their chosen fields.

Stores and Transport Branch

This Branch functions as the central storage and transport authority for most Commonwealth Departments. It is the authority for the arrangement of furniture removals at departmental expense in all States, but not in the Northern Territory. It has agents in Darwin. It also operates a shipping and customs section and the England–Australia bulk air freight scheme for Commonwealth Departments.

On 30 June 1969 the Branch had under its control land, buildings, and works, vehicles, plant, and equipment valued at $27,441,367; 4,604 motor vehicles and 3,240,000 sq ft of storage space as well as storage facilities for large quantities of chemicals, bulk liquids, and explosives.

Finance Branch

The total expenditure on Department of Supply activities in 1968–69 was $173,930,000, comprising $92,362,000 from Parliamentary appropriations and $81,568,000 from Trust Fund accounts. The latter included expenditure of $17,536,000 for storage and transport and $57,150,000 in Government Munitions and Aircraft Factories.

In addition, transactions under the United States–Australian logistics arrangement in 1968–69 amounted to $654,000, comprising $445,000 relating to Parliamentary appropriations and $209,000 relating to Trust Fund accounts.

CHAPTER 5

REPATRIATION

The Repatriation Commission, established under the *Repatriation Act* 1920–1969, consists of three full-time members. It is responsible for the administration of the Repatriation Act and associated legislation, all matters of policy, and the general administration and overall supervision of the Repatriation Department. The central office is in Canberra and there is a branch office, under the control of a Deputy Commissioner, in each State.

The principal functions of the Department are: the payment of war and service pensions to eligible ex-servicemen and ex-servicewomen and their dependants; the provision of medical treatment for ex-servicemen and ex-servicewomen for injuries and illnesses caused or aggravated by their war service; the provision of medical treatment in certain circumstances for ex-servicemen and ex-servicewomen who are suffering from injuries and illnesses not caused or aggravated by war service; and the provision of medical treatment for widows and dependants of deceased ex-servicemen whose deaths are due to war service.

Benefits are provided in respect of service, not only in the 1914–18 and 1939–45 Wars, but also in the South African War 1899–1902, the Korea and Malaya operations and with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces serving in prescribed areas.

Other functions of the Repatriation Department are outlined in a later section of this chapter.

For information on war service land settlement *see* Chapter 18, Public Finance; for statistics relating to war service homes *see* Chapters 9, Housing and Building and 18, Public Finance.

For detailed information about repatriation pensions, benefits and services, reference should be made to the annual reports of the Repatriation Commission.

War pensions

The first provision for the payment of war pensions to ex-servicemen and their dependants was made by the Commonwealth Parliament in the *War Pensions Act* 1914. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act* 1920 (amended from 31 December 1950 to the Repatriation Act). Amendments to the Act in 1943 considerably widened the eligibility provisions, to the benefit mainly of members of the Citizen Military Forces who had not served outside Australia.

For a brief description of eligibility for war pensions; the conditions for payment of the various rates and allowances; and of operation of the Appeals Tribunals, *see* pages 91–93 of Year Book 55, Chapter 5, Repatriation.

Pensions and allowances

War pensions and associated allowances are not subject to a means test, except in the case of dependants other than wives, widows, widowed mothers and children. Pensions and allowances payable and the main weekly rates from 2 October 1969 are as follows.

Pensions for war-caused incapacity—Special rate (totally and permanently incapacitated or blinded), $36.00; an equivalent rate is payable for temporary total incapacity or to an ex-serviceman pensioned for pulmonary tuberculosis who is, as a result, unfit for employment; *Intermediate Rate*. (Capable of part-time work only), $26.50; ex-servicemen pensioned for pulmonary tuberculosis and able only to work part-time receive the same rate; *General Rate* (capable of full-time employment), 100 per cent basic rate, $12. *Dependants*—Pensions are also payable to the dependants of incapacitated ex-servicemen: Wife, $4.05; children under 16 years, $1.38; (Maximum rates).

Pensions in respect of death—War Widows (where death was due to war service or, at the date of death, the ex-serviceman was receiving a war pension at the special rate, or its equivalent in respect of pulmonary tuberculosis, or as a double amputee) $15.00; eligible war widows may also receive a domestic allowance, $7.50; *children* (under 16 years of age), 1st child, $5.40; 2nd and subsequent children, $4.25 each; double orphans (both parents deceased), $10.15.

Allowances—various allowances are provided to supplement war pensions and these vary according to the type and severity of disablement and the special needs of the pensioner. The main allowances and maximum weekly rates payable are: *Special compensation allowance* (payable to certain general rate pensioners assessed as being 75 per cent to 100 per cent incapacitated), from $3.75 to $5.00; *Attendants allowance* (for the severely disabled), maximum $14; *Clothing allowances* (where clothing is subject to damage from surgical aids, etc.), from 43 cents to 85 cents; *Domestic allowance* (payable to eligible war widows), $7.50. Other allowances payable include: *Sustenance allowance; Fares, subsistence and attendance allowance; Recreation transport allowance; Funeral benefits, etc.*

Summary of war pensions

The following tables provide a summary of war pensions (excluding miscellaneous war pensions) for the 1914–18 War, the 1939–45 War (including war pensions payable under the *Interim Forces Benefits Act* 1947–1966 and the *Native Members of the Forces Act* 1957–1968), the Korea and Malaya operations, the Far East Strategic Reserve, and the Special Overseas Service. Statistics relating to miscellaneous war pensions are shown later in this section.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1968-69

		1914–18 War	*1939–45 War(a)*	*Korea and Malaya operations*	*Far East Strategic Reserve*	*Special Overseas Service*	*Total*
New claims granted	No.	859	14,240	612	200	1,659	17,570
Restorations	No.	50	368	8	3	..	429
Claims rejected(*b*)	No.	668	3,610	164	57	451	4,950
Pensions cancelled (gross)	No.	213	21,759	219	31	63	22,285
Deaths of pensioners	No.	5,556	5,642	40	5	4	11,247
Number of pensions in force at 30 June 1969		88,525	494,662	11,603	1,668	3,855	600,313
Annual pension liability at 30 June 1969	$'000	53,661	116,105	1,400	163	490	171,818
Amount paid in pensions during the year 1968–69	$'000	n.a.	n.a.	n.a.	n.a.	n.a.	(*c*)182,485

(*a*) Includes interim forces and native members of the forces. (*b*) Number of ex-servicemen who had their claims for all their disabilities rejected. (*c*) Includes five 12-weekly payments

WAR PENSIONS: SUMMARY, AUSTRALIA, 1964-65 TO 1968-69

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New claims granted	27,879	22,750	21,121	19,967	17,570
Restorations	803	571	526	343	429
Total additions	*28,682*	*23,321*	*21,647*	*20,310*	*17,999*
Pensions cancelled (gross)	25,948	26,450	25,732	24,539	22,285
Deaths of pensioners	10,342	10,308	10,898	10,950	11,247
Total reductions	*36,290*	*36,758*	*36,630*	*35,489*	*33,532*

Classes of war pensions

The following tables provide an analysis of the total number of new claims granted, pensions in force, and class of pension for 1968–69.

WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1968-69

Class	*1914–18 War*	*1939–45 War(a)*	*Korea and Malaya operations*	*Far East Strategic Reserve*	*Special Overseas Service*	*Total*
Ex-servicemen	375	4,505	126	45	726	5,777
Wives and widows of ex-servicemen	453	4,785	135	37	432	5,842
Children	25	4,816	348	114	491	5,794
Other dependants . . .	6	134	3	4	10	157
Total	**859**	**14,240**	**612**	**200**	**1,659**	**17,570**

(*a*) Includes interim forces and native members of the forces.

WAR PENSIONS IN FORCE: AUSTRALIA, 30 JUNE 1969

Class	*1914–18 War*	*1939–45 War(a)*	*Korea and Malaya operations*	*Far East Strategic Reserve*	*Special Overseas Service*	*Total*
Ex-servicemen	30,738	185,334	3,133	470	1,668	221,343
Wives	32,932	159,825	2,477	365	876	196,475
Children	345	114,824	5,583	764	1,080	122,596
War widows	23,898	23,532	136	20	70	47,656
Children of deceased ex-servicemen	52	4,974	161	41	125	5,353
Orphans	22	171	2	. .	1	196
Parents	324	5,515	106	7	30	5,982
Others	214	487	5	1	5	712
Total	**88,525**	**494,662**	**11,603**	**1,668**	**3,855**	**600,313**

(*a*) Includes interim forces and native members of the forces.

WAR PENSIONS IN FORCE BY CLASS OF PENSION, AUSTRALIA 30 JUNE 1969

Class	*1914–18 War*	*1939–45 War(a)*	*Korea and Malaya operations*	*Far East Strategic Reserve*	*Special Overseas Service*	*Total*
Special rate (T.P.I.) or equivalent	9,425	14,010	91	5	9	23,540
Intermediate rate	192	1,191	15	2	1	1,401
General rate—from 10 per cent to 100 per cent assessed disability	21,121	170,133	3,027	463	1,658	196,402
Total	**30,738**	**185,334**	**3,133**	**470**	**1,668**	**221,343**

(*a*) Includes interim forces and native members of the forces.

Number of war pensions and annual liability, States, etc.

The following table shows the number of pensions in force and annual liability at 30 June 1969, according to place of payment.

WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY STATES, ETC., 30 JUNE 1969

	Number of war pensions in force at 30 June 1969(a)				
Place of payment	*Incapacitated ex-servicemen*	*Dependants of incapacitated ex-servicemen*	*Dependants of deceased ex-servicemen*	*Total*	*Annual pension liability(b) ($'000)*
New South Wales(c) .	78,707	110,186	21,759	210,652	61,388
Victoria . . .	60,247	87,422	17,024	164,693	48,216
Queensland . . .	33,355	50,285	7,901	91,541	26,835
South Australia(d) . .	20,573	30,193	5,101	55,867	14,400
Western Australia . .	18,668	26,529	4,295	49,492	12,333
Tasmania . . .	8,644	13,731	2,100	24,475	7,161
Abroad . . .	1,149	1,553	891	3,593	1,485
Total . . .	**221,343**	**319,899**	**59,071**	**600,313**	**171,818**

(a) Includes interim forces and native members of the forces 1939–45 War. (b) Includes domestic allowance payable to widows. (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Summary of war pensions, 1964–65 to 1968–69

The following table shows the number of pensions granted, claims rejected, pensions in force, and the annual liability for pensions in each of the years ended 30 June 1965 to 1969.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1964–65 TO 1968–69

			Number of war pensions in force at 30 June(a)—				
Year	*Pensions granted*	*Claims rejected(b)*	*Incapacitated ex-servicemen*	*Dependants of incapacitated ex-servicemen*	*Dependants of deceased ex-servicemen*	*Total*	*Annnal pension liability at 30 June(c) ($'000)*
1964–65 . .	27,879	r5,146	223,343	379,968	56,441	659,752	140,889
1965–66 . .	22,750	r5,071	223,377	365,583	57,195	646,155	156,904
1966–67 . .	21,121	r4,819	222,912	350,365	57,897	631,174	163,388
1967–68 . .	19,967	r4,578	222,479	334,823	58,674	615,976	164,848
1968–69 . .	17,570	4,950	221,343	319,899	59,071	600,313	171,818

(a) Includes interim forces and native members of the forces 1939–45 War. (b) The number of claimants who had the claims for all their disabilities rejected. (c) Includes domestic allowance payable to widows.

The following table shows, for the years 1964–65 to 1968–69, the amounts paid in pensions and the places where they were paid.

WAR PENSIONS: AMOUNT PAID(a), STATES, ETC., 1964–65 TO 1968–69 ($'000)

Place of payment	*1964–65*	*1965–66(b)*	*1966–67*	*1967–68*	*1968–69(b)*
New South Wales(c) .	52,809	58,851	55,884	57,424	64,981
Victoria . . .	45,064	49,526	46,882	47,146	51,566
Queensland . .	23,295	25,928	24,992	25,525	28,543
South Australia(d) .	13,209	14,633	13,613	13,807	15,326
Western Australia .	11,430	12,617	11,869	11,914	13,038
Tasmania . . .	6,210	6,914	6,650	6,786	7,617
Abroad . . .	1,466	1,677	1,509	1,519	1,414
Total . .	**153,483**	**170,146**	**161,399**	**164,121**	**182,485**

(a) Includes domestic allowances paid to widows. (b) Includes five 12-weekly payments (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Miscellaneous war pensions

The Commission is also responsible for the payment of pensions and allowances to beneficiaries under the *Seamen's War Pensions and Allowances Act* 1940–1967 and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war-time.

The following table shows the number and class of pensions and the annual liability at 30 June 1969, and the table thereafter shows the amounts paid during the years 1964–65 to 1968–69 and the place of payment.

MISCELLANEOUS WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, AUSTRALIA, 30 JUNE 1969

Class	*Number of pensions in force at 30 June 1969*				*Annual pension liability ($'000)*
	Members(a)	*Dependants of Members*	*Dependants of deceased members*	*Total*	
Act of grace	124	147	58	329	128
Seamen's war pension	81	106	70	257	88
New Guinea civilians	1	. .	79	80	32
Total	**206**	**253**	**207**	**666**	**248**

(*a*) 'Member' in this context is a person in respect of whose wartime experience a pension is paid.

MISCELLANEOUS WAR PENSIONS: AMOUNT PAID, STATES, ETC.
1964-65 TO 1968-69
($'000)

Place of payment	*1964–65*	*1965–66(a)*	*1966–67*	*1967–68*	*1968–69(a)*
New South Wales(*b*)	156	161	148	159	174
Victoria	70	76	71	71	87
Queensland	42	46	44	44	46
South Australia(*c*)	30	34	29	29	30
Western Australia	17	20	20	20	23
Tasmania	4	4	4	4	4
Abroad	1	3	1	1	1
Total	**321**	**344**	**317**	**328**	**365**

(*a*) Includes five 12-weekly payments. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

Service pensions

The *Repatriation Act* 1920–1969 provides for a service pension to be paid, subject to a means test of income and property, to the following persons:

- ex-servicemen who served in a theatre of war (or in a designated *Operational* or *Special Overseas Service* area) and have attained the age of sixty years or are permanently unemployable;
- ex-servicemen who suffer from pulmonary tuberculosis, irrespective of the area of their service; and
- ex-servicewomen who suffer from tuberculosis, or who served in a theatre of war, or served abroad or embarked for service abroad and have attained the age of fifty-five years, or are permanently unemployable.
- veterans of the South African War 1899–1902 who were members of a naval or military force or contingent raised in Australia for active service in that war.

Rates of pension

Maximum service pension rates and allowances are the same as those paid to Age and Invalid pensioners under the Social Services Act. The means test provisions relating to payments are similar.

For information on conditions relating to the various rates and allowances and the operation of the means test, *see* Chapter 13, Welfare Services.

From 2 October 1969, the maximum weekly rates are as follows.

Standard (Single) Rate, $15; Standard (married) Rate (wife not eligible for Age or Invalid pension) Husband $15; wife if otherwise eligibile, $7; Married rate (wife receiving Age or Invalid pension from Department of Social Services), $13.25; *Guardians Allowance*, $4 ($6 if caring for a child under 6 years or an invalid child requiring full time care); *Supplementary assistance*, $2; *Additional pension for eligible children*, $2.50 for first and $3.50 for each subsequent child; In addition $0.25 is payable in respect of the 2nd, 3rd and 4th children.

An ex-serviceman or ex-servicewoman in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not caused by war service. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment, and treatment in Repatriation General Hospitals.

Operations

SERVICE PENSIONS: SUMMARY, AUSTRALIA, 1968-69

	South African War	*1914–18 War*	*1939–45 War(a)*	*Korea-Malaya operations*	*Special Overseas Service*	*Miscellaneous (b)*	*Total*
New claims granted	10	1,660	5,786	20	1	2	7,479
Restorations	1	271	500	8	..	..	780
Cancellations (gross)	1	1,328	3,663	16	..	1	5,009
Deaths	17	3,272	1,309	1	..	2	4,601
Pensions in force at 30 June 1969	167	37,621	29,246	111	1	22	67,168
Annual liability at 30 June 1969 $'000	89	19,774	13,355	44	1	10	33,273
Amount paid in pensions during 1968–69 $'000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	34,108

(*a*) Includes native members of the forces. (*b*) Act of grace pensions.

SERVICE PENSIONS: SUMMARY, AUSTRALIA, 1964-65 TO 1968-69

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New claims granted	8,273	8,048	8,578	8,880	7,479
Restorations	1,035	1,052	1,056	1,052	780
Total additions	*9,308*	*9,100*	*9,634*	*9,932*	*8,259*
Cancellations (gross)	4,948	4,259	4,197	4,017	5,009
Deaths	3,947	4,000	4,362	4,373	4,601
Total reductions	*8,895*	*8,259*	*8,559*	*8,390*	*9,610*

Classes of service pensions

The following tables give an analysis of the total number of new claims granted and pensions in force for 1968–69.

SERVICE PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1968-69

Class	*South African War*	*1914–18 War*	*1939–45 War(a)*	*Korea-Malaya operations*	*Special Overseas Service*	*Miscellaneous*	*Total*
Ex-servicemen	10	1,212	3,942	11	1	1	**5,177**
Wives and widows of ex-servicemen	..	430	1,226	3	..	1	**1,660**
Children	..	18	618	6	..	..	**642**
Total	**10**	**1,660**	**5,786**	**20**	**1**	**2**	**7,479**

(*a*) Includes native members of the forces.

SERVICE PENSIONS: NUMBER IN FORCE, STATES, 30 JUNE 1969

State	*South African War*	*1914–18 War*	*1939–45 War(a)*	*Korea-Malaya operations*	*Special Overseas Service*	*Miscellaneous*	*Total*
New South Wales(*b*) .	38	11,986	9,167	34	. .	1	21,226
Victoria . . .	31	10,240	6,261	18	. .	11	16,561
Queensland . . .	30	6,077	6,271	28	1	4	12,411
South Australia(*c*) .	31	4,327	2,690	10	. .	4	7,062
Western Australia .	32	3,691	3,559	14	. .	2	7,298
Tasmania . . .	5	1,300	1,298	7	. .	. .	2,610
Australia . .	**167**	**37,621**	**29,246**	**111**	**1**	**22**	**67,168**

(*a*) Includes native members of the forces. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

Number, by class, of service pensions and amount paid

The following tables show the number of each class of service pension in force, the annual liability and the amounts paid for the years 1964–65 to 1968–69.

SERVICE PENSIONS: NUMBER OF EACH CLASS OF PENSION AND ANNUAL LIABILITY AUSTRALIA, 1964-65 TO 1968-69

	Number of service pensions at 30 June payable to—							
	Ex-servicemen who are—			*Dependants(a) of ex-servicemen where the ex-serviceman is—*				
Year	*Aged ex-servicemen*	*Permanently unemployable*	*Suffering from pulmonary tuberculosis*	*Aged or permanently unemployable*	*Suffering from pulmonary tuberculosis*	*Miscellaneous*	*Total*	*Annual pension liability at 30 June ($'000)*
1964–65 .	33,959	14,296	1,080	14,480	1,354	9	65,178	25,685
1965–66 .	34,403	14,396	1,070	14,716	1,299	10	65,894	26,637
1966–67 .	34,814	14,512	1,073	15,421	1,152	21	66,993	31,239
1967–68 .	35,254	14,874	1,049	16,237	1,091	22	68,527	31,436
1968–69 .	35,404	14,797	1,060	14,910	975	22	67,168	33,273

(*a*) Includes dependants of deceased service pensioners.

SERVICE PENSIONS: AMOUNT PAID, STATES, ETC. 1964-65 TO 1968-69 ($'000)

Place of payment	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales(*a*) .	8,494	9,499	9,998	10,844	11,358
Victoria . . .	5,974	6,626	6,720	7,420	8,070
Queensland . . .	4,048	4,477	4,715	5,292	5,799
South Australia(*b*) . .	2,766	3,025	3,134	3,416	3,710
Western Australia . .	3,320	3,571	3,612	3,777	4,071
Tasmania . . .	904	964	935	1,014	1,093
Abroad . . .	2	10	11	8	7
Australia . .	**25,508**	**28,172**	**29,126**	**31,771**	**34,108**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

Medical treatment for ex-servicemen and dependants of ex-servicemen

Medical treatment is provided for all disabilities which have been accepted as due to war service. In addition, and subject to certain conditions, treatment is provided for disabilities not due to war service for: ex-servicemen and ex-servicewomen receiving war pensions at or exceeding the maximum general (100 per cent) rate; ex-servicemen who have contracted pulmonary tuberculosis; nurses who served in the 1914–18 war; widows and certain dependants of ex-servicemen whose deaths have been accepted as due to war service and of deceased T.P.I. pensioners; and certain service pensioners, including service pensioners of the South African War 1899–1902.

In-patient treatment for eligible patients is provided at the six Repatriation General Hospitals (one in each State) and seven auxiliary hospitals and sanatoriums as follows: *New South Wales*—Lady Davidson Hospital; *Victoria*—Macleod Hospital and Anzac Hostel; *Queensland*—Kenmore Hospital and Rosemount Hospital; *South Australia*—Birralee Hospital; and *Western Australia*—The Edward Millen Hospital. The Anzac Hostel specialises in the care and treatment of long-term patients.

The total number of available beds for patients in wards or parts of wards, open for use, in all these institutions at 30 June 1969 was 3,978, and expenditure during 1968–69 amounted to $28,181,029. In addition, expenditure of $34,561,984 was incurred during 1968–69 on medical services outside these institutions.

Repatriation hospitals and institutions

Details of full-time staff in Repatriation general hospitals and other Repatriation institutions are given in the following table.

REPATRIATION HOSPITALS AND INSTITUTIONS: FULL-TIME STAFF STATES, 30 JUNE 1969

Type of institution	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
General hospitals—							
Medical staff	115	83	38	32	24	8	300
Nursing staff	747	499	350	229	201	53	2,079
Other staff	1,123	809	483	319	424	118	3,276
Total, general hospitals	*1,985*	*1,391*	*871*	*580*	*649*	*179*	*5,655*
Other in-patient institutions(*a*)	217	117	170	35	40	..	579
Out-patient clinics(*a*)	172	78	21	37	27	..	335
Limb and appliance centres(*a*)	71	66	28	20	13	12	210
Grand total	**2,445**	**1,652**	**1,090**	**672**	**729**	**191**	**6,779**

(*a*) Total staff.

The following table gives details of in-patients treated at Repatriation general hospitals and other Repatriation institutions in each State. The figures shown refer to cases, e.g. a person who is admitted to hospital twice during a year is counted twice.

REPATRIATION GENERAL HOSPITALS AND INSTITUTIONS: IN-PATIENTS TREATED, STATES, 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
REPATRIATION GENERAL HOSPITALS							
In-patients at beginning of year	1,144	737	475	318	408	96	3,178
Admissions and re-admissions during year	19,975	10,686	8,707	5,389	5,721	1,763	52,241
Total in-patients treated	*21,119*	*11,423*	*9,182*	*5,707*	*6,129*	*1,859*	*55,419*
Discharges	18,931	9,822	8,346	5,030	5,435	1,694	49,258
Deaths	1,078	949	382	355	370	65	3,199
In-patients at end of year	1,110	652	454	322	324	100	2,962
Average daily number resident	1,088	646	434	303	357	89	2,917
OTHER REPATRIATION INSTITUTIONS							
In-patients at beginning of year	177	101	129	28	37	..	472
Admissions and re-admissions during year	1,407	700	923	118	352	..	3,500
Total in-patients treated	*1,584*	*801*	*1,052*	*146*	*389*	..	*3,972*
Discharges	1,393	680	904	116	346	..	3,439
Deaths	37	23	19	..	2	..	81
In-patients at end of year	154	98	129	30	41	..	452
Average daily number resident	163	103	125	27	33	..	451

In addition to the Repatriation institutions, eligible patients are treated in other country and metropolitan hospitals and nursing homes at Repatriation expense. During 1968–69, 15,577 Repatriation in-patients were accommodated and treated in hospitals and 891 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Repatriation Department in separate wings of psychiatric hospitals administered by the State authorities. Excluding 124 on trial leave, there were 817 Repatriation patients in these hospitals at 30 June 1969.

Out-patient treatment is provided throughout the Commonwealth at Repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1968–69, 605,506 out-patients were treated at Repatriation institutions, and visits to or by local medical officers totalled 2,777,222. The number of Repatriation local medical officers in the Commonwealth at 30 June 1969 was 5,887.

General Repatriation benefits and miscellaneous

Other Repatriation Department activities

In addition to the payment of pensions and the provision of medical treatment, the Department also provides various benefits and allowances designed to meet the needs of special classes of ex-servicemen and their dependants.

These include educational and vocational training schemes, namely the *Soldiers' Children Education Scheme* (full details of which appear later in this section), the *Korea and Malaya Training Scheme*, the *Disabled Members' and Widows' Training Scheme* and the *National Service Vocational Training Scheme*.

In addition, gift cars and an annual allowance for their upkeep are provided for ex-servicemen who, as a result of war service, have suffered the amputation of both legs above the knees or amputation of one leg above the knee plus any two other amputations (above the ankle or at or above the wrist) or complete paraplegia resulting in the total loss of the use of both legs. A grant of up to $50 may be made towards the funeral expenses of eligible ex-servicemen and certain of their dependants. Payment of up to $10 may be made to provide such necessities as meals, sleeping accommodation etc., for ex-servicemen in need of immediate relief. Also certain concessions in telephone charges are provided for some classes of ex-servicemen and their dependants, including war blinded ex-servicemen, war widows and certain service and special rate war pensioners. Ex-servicemen who have been blinded as a result of war service may be issued with talking book machines. The Australian Red Cross Society supplies 'book' records for these machines, free of charge, thus enabling the blinded to enjoy a wide range of literature.

Expenditure in 1968–69 on general Repatriation benefits for all wars was $4,719,000, comprising; Soldiers' Children Education Scheme, $3,154,000; recreation transport allowance, $607,000; and other benefits $958,000. In addition, $18,000 was expended by other Commonwealth authorities on Repatriation employment and vocational training.

Soldiers' Children Education Scheme

The Soldiers' Children Education Scheme was established in 1921 and operates with the assistance of the voluntary Education Boards in each State. These Boards consist of representatives of government and non-government education authorities and of ex-service and other organisations which have a general interest in the welfare of the children of ex-servicemen. The objects of the Scheme are to assist and encourage eligible children in acquiring a standard of education compatible with their aptitude and ability, and to prepare them to enter an agricultural, commercial, professional, or industrial calling of their own choice. Eligible children are children of ex-servicemen whose deaths have been accepted as due to war service; or of ex-servicemen who died from causes not due to war service but who were receiving at the date of death a war pension at a special rate for blindness, total and permanent incapacity, pulmonary tuberculosis, or amputation of two or more limbs; or of ex-servicemen who, as a result of war service, are blinded, totally and permanently incapacitated, or receiving the special rate pension for pulmonary tuberculosis and are likely to receive such pension for a period of at least three years. From the commencement of primary education up to twelve years, school requisites and fares are provided. An education allowance is also payable for a child from commencement of secondary education or from the age of twelve years, whichever is the earlier, while the child is undertaking primary or secondary education. Further assistance beyond, or parallel with, the later years of secondary education is provided where an approved beneficiary continues with a course of specialised education or training necessary for a career. At this stage of training, in addition to the education allowance, fees are paid and text books, essential equipment and other minor benefits are provided.

All education allowances are subject to an allowed income limit test, i.e. the amount of education allowance payable depends on the amount of income a child receives over the allowed limit. The scale of maximum allowances payable to eligible children at various stages of education is as follows.

SOLDIERS' CHILDREN EDUCATION SCHEME
WEEKLY RATES OF ALLOWANCES, 1 JANUARY 1970

($)

Type of training	*Living at home*	*Living away from home*
At school—		
Aged 12 and under 14 years	2.18	7.28
Aged 14 ,, ,, 16 years	3.30	7.28
Aged 16 ,, ,, 18 years	7.28	11.25
Professional (university, etc.)	11.93	19.25
Agricultural	. .	3.65
Industrial (apprenticeship, etc.)	2.65	5.30

The following tables show the costs of education under the scheme for the year ended 30 June 1969 and the number of children in receipt of benefit at 30 June 1969.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1968-69

($'000)

	N.S.W. (a)	*Vic.*	*Qld*	*S.A. (b)*	*W.A.*	*Tas.*	*Aust.*
Cost of education of beneficiaries—							
Under 12 years of age	9	7	9	3	2	1	31
12 years of age and over	1,127	850	537	288	180	127	3,109
Total expenditure	**1,136**	**857**	**546**	**291**	**182**	**128**	**(c)3,140**

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Excludes overseas expenditure of $14,000.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS(a) AT 30 JUNE 1969

Type of training	*N.S.W. (b)*	*Vic.*	*Qld*	*S.A. (c)*	*W.A.*	*Tas.*	*Abroad*	*Total*
At school—								
Aged under 14 years(*d*)	753	552	411	183	129	136	11	2,175
Aged 14 and under 16 years	1,071	727	504	221	177	159	19	2,878
Aged 16 and under 18 years	835	580	303	181	114	70	13	2,096
Total at school	*2,659*	*1,859*	*1,218*	*585*	*420*	*365*	*43*	*7,149*
Professional	425	410	214	157	81	62	9	1,358
Agricultural	6	10	10	1	4	1	. .	32
Industrial	. .	5	. .	. .	. .	. .	. .	5
Grand total	**3,090**	**2,284**	**1,442**	**743**	**505**	**428**	**52**	**8,544**

(a) Refers only to children in receipt of an education allowance. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) From 12 years of age or the commencement of secondary education, whichever is the earlier.

Settlement of returned service personnel on the land

Reference to the settlement of returned service personnel on the land will be found in the chapters Public Finance and Rural Industry.

Re-establishment benefits for national servicemen

Subject to prescribed conditions, special re-establishment benefits are provided for national servicemen under the *Defence (Re-establishment) Act* 1965–1968. They apply to all national servicemen whether or not they have served on 'special service' and ensure that servicemen will not be at a disadvantage on their return to civil life. The scheme includes appropriate full or part-time training where it is necessary or desirable for effective re-settlement. The assistance includes payment of tuition fees, other associated fees and fares, and provision of books and equipment as appropriate. A training allowance is also provided for trainees undertaking full-time studies.

Re-establishment loans may be granted, subject to certain conditions, to those national servicemen in need of financial assistance for their re-establishment in civil life and who, prior to call-up, were engaged on their own account in professional practice, business, or agricultural occupations, or who, because of their call-up, were prevented from engaging in these occupations or, in any other case where it is considered desirable in the circumstances to grant a loan.

The maximum amounts of the loans are business and professional $3,000, agricultural $6,000.

Repatriation—Total expenditure 1968-69

Total expenditure on Repatriation during the year ended 30 June 1969, including $4,841,789 by other Departments, was $302,546,435 distributed as follows:

	$'000
Pensions, allowances and other benefits	221,678
Medical treatment	62,743
Administration	13,196
Works, rent and maintenance	4,929
Total	**302,546**

The Services Canteens Trust Fund

The Services Canteens Trust Fund was established under the *Services Trust Funds Act* 1947. Its funds are derived from the assets and profits of wartime services canteens, mess and regimental funds of disbanded units, and several other sources.

The total amount transferred to the Fund to 31 December 1969 was $11,055,541. The Act prescribed that, of this, $5 million and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible ex-servicemen and ex-servicewomen, and that the balance of the Fund should be used to provide relief for ex-servicemen and ex-servicewomen and their dependants in necessitous circumstances.

The Fund is administered by eleven honorary trustees appointed by the Governor-General and regional committees appointed by the trustees to assist with administration. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of the benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939–45 War or are widows of men who served during the war. They serve in an honorary capacity.

Assistance from the Fund

Persons eligible for assistance from the Fund are those who, between 3 September 1939 and 30 June 1947, served in the Australian Naval, Military or Air Forces, including members of the canteens staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Forces who served in an official capacity on full-time paid duty, and their dependants. The trustees have introduced schemes for providing welfare relief for ex-servicemen and ex-servicewomen who are eligible for benefits, and for their dependants; benefits for children of eligible ex-servicemen and ex-servicewomen who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible ex-servicemen and ex-servicewomen. From its inauguration in 1947 the Fund is to be available for forty years for both welfare relief and educational benefits.

The total assistance granted under these three schemes from the inception of the Fund to 31 December 1969 was $11,419,522 ($425,865 during 1969) distributed as follows: *Welfare relief*, $3,485,245 ($123,143); *Assistance for Afflicted Children*, $316,645 ($6,439); and *Educational assistance*, $7,617,632 ($296,283).

For detailed information on the operation of the Fund reference should be made to the annual reports of the Services Canteen Trust Fund.

CHAPTER 6

INTERNATIONAL RELATIONS

Relations with Commonwealth and other countries

Australia's international relations have developed steadily since its attainment of nationhood at the beginning of this century. Initially, association with Britain and co-operation with the Commonwealth countries were a major preoccupation. These links remain important principles of foreign policy. Australia also maintains particularly close relations with the United States of America and is continuing to foster regional association with the countries of Asia.

Commonwealth relations

In addition to being represented at the meetings of Commonwealth Prime Ministers, Finance Ministers, and Ministers for Trade, Australia belongs to the sterling area, retains the system of judicial appeal from the States' courts to the Privy Council, maintains High Commissions in 14 other Commonwealth countries, and is a member of the main Commonwealth organisations providing for co-operation in economic, scientific, educational, and other fields.

Relations with the United States of America

An important feature of Australia's international relations is its relationship with the United States of America. This relationship is formally expressed in the ANZUS Treaty which was signed pursuant to Articles 51 and 52 of the United Nations Charter. It provides that, in the event of armed attack on any one of them in the Pacific, the United States, Australia, and New Zealand would each act to meet the common danger in accordance with its constitutional processes.

Australia and Asia

Geographical location to the south of Asia has become an increasingly important factor in Australia's foreign policy. Australia is active as a member of the South-East Asia Treaty Organisation (SEATO), as a regional member of the United Nations Economic Commission for Asia and the Far East (ECAFE), as a member of the Colombo Plan Consultative Committee, of the Asian Development Bank, and of the Asian and Pacific Council (ASPAC); and also in commercial and professional associations.

United Nations

From the time of the drafting of the United Nations Charter, Australia has taken an active role in the United Nations, primarily through participation in the General Assembly but also through membership of the Security Council (1946–47 and 1956–57), the Economic and Social Council (1948–50, 1953–55 and 1962–64), and the Trusteeship Council.

Contributions are made to various forms of international aid through the United Nations and its specialised agencies.

SEATO

Following the cessation of fighting in Indo-China in 1954, Australia, with a number of other countries situated in the south-east Asian region, or having responsibilities there, supported a proposal to form a collective defence alliance to guarantee the peace and security of the region from external aggression. On 8 September 1954 Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom and the United States signed the South-East Asian Collective Defence Treaty at Manila. They also signed a Pacific Charter stating the principles on which they had acted. A Protocol to the Treaty extended its operation to Cambodia, Laos and the free territory under the jurisdiction of the State of Vietnam, although no action on these territories would be taken except at the invitation or with the consent of the government concerned.

While primary emphasis has been placed on the defence significance of the Treaty, a civil secretariat was established to co-ordinate wide-ranging activities designed to improve the security, economic and social welfare of the peoples of the Treaty Area. These activities include studies on counter-subversion, cultural improvement, welfare projects and educational training centres. To facilitate this task the Australian Government in 1956 instituted a SEATO Aid Programme, under which by 30 June 1969 aid to the value of $21.41 million had been given to member countries in Asia to help develop their capacity to resist aggression and subversion and to stimulate economic development. This programme is complementary to Australia's Colombo Plan contribution. Australian SEATO aid projects, completed or in progress, include the provision of geodetic survey vessels for the Philippines; military technical training schools, a vehicle base repair shop, and two 50 kW radio transmitters to Thailand; telecommunications, technical training and workshop equipment to Pakistan; corrugated iron, town water supply systems for Bien Hoa and Can Tho, four surgical teams, and school textbooks for Vietnam. Australia has also provided military training, and technical training in the fields of engineering, telecommunications, naval architecture and dockyard maintenance, security procedures, and surveying for more than 245 trainees from Asian member countries. In addition a number of senior service officers of other member countries have visited Australia to foster understanding and to develop co-operation between the armed forces.

Participation in the United Nations

Australia's contributions to the United Nations

Australia played an active part in drafting the Charter of the United Nations at the Conference on International Organization in San Francisco in 1945 and has been a consistent supporter of the principles and objectives of the United Nations since its foundation. Australia's influence in the affairs of the United Nations has been exerted primarily through the annual debates in the General Assembly, through membership of the Security Council (1946-47 and 1956–57) and the Economic and Social Council (1948–50, 1953–55 and 1962–64), and through the Trusteeship Council. By virtue of responsibility for the administration of the Trust Territory of Nauru prior to Nauru's independence in January 1968 and the continuing administration of the Trust Territory of New Guinea, Australia has been a member of the Trusteeship Council, as an administering power, since the Council's establishment.

In 1950 Australia joined fifteen other member States in answering the Security Council's call to help the Republic of Korea to repel Communist aggression from the north, and members of all three armed services took part in the three years of fighting which followed. Australia has also been directly involved in United Nations activities in many other parts of the world. Australia has contributed its share of the costs, both assessed and voluntary, of all United Nations peace-keeping operations, the largest of which have been the United Nations Emergency Force (UNEF) in the Middle East in 1956–57, the United Nations Operation in the Congo (ONUC) in 1960–64, and the United Nations Force in Cyprus (UNFICYP) since 1964. In addition to financial contributions, an element of fifty Australian policemen has been made available for service with UNFICYP.

Australia was a member, in 1968, of the Ad Hoc Committee on the Sea-bed and was appointed to membership of the Permanent Committee established by the Twenty-third General Assembly. In 1968–69 also, Australia was a member of the Committee on Defining Aggression.

In the economic, social and cultural sphere Australia has contributed to the work of the United Nations through membership of its specialised agencies, of the Economic and Social Council and of the United Nations Conference on Trade and Development (UNCTAD). Australia has been a member of the Trade and Development Board since its inception in 1963. It is a foundation member of one of the four Regional Economic Commissions—the Economic Commission for Asia and the Far East, the 4th, 15th and 23rd Sessions of which were held in Australia. In 1963 Australia became a regional member of ECAFE and in 1970 became a member of the Preparatory Committee for the Second United Nations Development Decade.

Australia has had varying periods of service as a member of the executive bodies of the principal specialised agencies. As a leading agricultural country, Australia played a large part in the establishment of the Food and Agriculture Organization (F.A.O.). Australia is a member of the Board of Governors of the International Atomic Energy Agency. Australia served as a member of the governing body of the International Labour Organisation either as a titular government member or as a deputy member from 1945 to 1960 and from 1963 to 1969. It is also a member of the Executive Board of the World Health Organization, the Administrative Council of the International Telecommunications Union, the Executive Committee of the World Meteorological Organization, and the Council of the Inter-Governmental Maritime Consultative Organisation. It was elected to the Executive Council and the Consultative Committee for Postal Studies and Management Council of the Universal Postal Union.

Australia has also been a prominent member of the International Civil Aviation Organization since its inception, and in 1962 was re-elected to the Council as one of the nine States of principal civil aviation importance. It was a member of the executive board of the United Nations Children's Fund (UNICEF) from 1947 to 1961 and from 1966 to 1969.

Australia's contributions in international aid

Aid

The following table sets out Australia's contribution in international aid from 1964–65 to 1968-69.

AUSTRALIA'S CONTRIBUTION IN INTERNATIONAL AID, 1964-65 TO 1968-69 ($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Bilateral Programmes—					
Colombo Plan—					
Economic Development	5,638	6,876	6,939	6,750	6,565
Technical Assistance	4,796	4,879	5,774	6,681	6,336
Emergency Aid to Indonesia	..	..	..	4,750	5,916
SEATO Aid Programme	2,504	2,258	2,309	2,498	2,389
Indus Waters Scheme	2,108	2,218	1,749	1,996	2,137
Emergency Food Aid—India	7,602	7,381	9,479	9,500	..
International Grains Arrangement—					
Food Aid Convention	..	..	..	..	11,853
Laos Foreign Exchange Operations Fund	216	673	612	535	723
Special Commonwealth African Assistance Programme	328	420	427	423	411
Commonwealth Co-operation in Education(*a*)	648	660	700	753	749
South Pacific Aid Programme	..	34	167	416	407
Other	390	333	126	97	166
Total Bilateral Aid	*24,230*	*25,732*	*28,282*	*34,399*	*37,652*
Multilateral Programmes—					
International Financial Institutions—					
IDA (International Development Association)(*b*)	2,546	5,684	6,005	7,134	2,020
ADB (Asian Development Bank)(*b*)	..	..	3,795	3,795	7,589
United Nations Programmes—					
UNDP (UN Development Programme)	1,170	1,170	1,170	1,292	1,241
UNRWA (UN Relief and Works Agency)	180	180	180	180	180
UNHCR (UN High Commissioner for Refugees)	100	100	135	134	135
UNICEF (UN Children's Fund)	480	480	480	480	480
World Food Programme	460	161	492	698	692
Other	15	15	65	15	68
Total Multilateral Aid	*4,951*	*7,790*	*12,322*	*13,728*	*12,405*
Papua and New Guinea(*c*)—					
Grant to Administration	55,998	62,000	69,784	77,594	86,994
Expenditure by other Departments	10,600	11,600	14,000	14,000	13,000
Total Papua and New Guinea Aid	*66,598*	*73,600*	*83,784*	*91,594*	*99,994*
Total International Aid	**95,779**	**107,122**	**124,388**	**139,721**	**150,051**

(*a*) Administered principally by the Department of Education and Science. (*b*) The Department of the Treasury has the principal responsibility for the management of Australia's participation in these organisations. (*c*) The grant to assist the economic development of the Territory of Papua and New Guinea is administered principally by the Department of External Territories.

The current level of Australia's aid represents about $13 per head of its population and is 0.55 per cent of its Gross National Product. On a world comparison of official assistance flows, Australia is ranked among the first three aid donors.

Some two-thirds of Australia's aid is channelled to Papua and New Guinea (*See* Chapter 29, The Territories of Australia). The remainder is channelled through multilateral programmes (e.g. through the World Bank, U.N. Agencies and the Asian Development Bank) and through bilateral programmes. The following table sets out the geographic distribution of Australia's bilateral aid.

AUSTRALIA'S BILATERAL AID BY GEOGRAPHICAL REGION AND COUNTRY

($'000)

Country	*Cumulative total expenditure to 30 June 1968*	*Expenditure 1968–69*
ASIA—		
Afghanistan	124	674
Bhutan	293	103
Brunei	83	. .
Burma	7,254	647
Cambodia	3,632	195
Ceylon	11,996	1,639
India	73,281	5,204
Indonesia	21,774	11,501
Iran	2	4
Korea	950	1,127
Laos	5,132	1,307
Malaysia	17,571	3,147
Maldive Islands	36	23
Nepal	687	44
Pakistan	40,393	2,851
Philippines	4,315	856
Singapore	3,921	578
Thailand	18,460	2,504
Vietnam	14,593	1,914
Miscellaneous, i.e. administrative costs, regional projects, etc.	4,518	694
Total	*229,015*	*35,012*
SOUTH PACIFIC—		
British Solomon Islands Protectorate	31	30
Fiji	192	866
Gilbert and Ellice Islands	114	32
New Hebrides	25	5
Tonga	94	62
Western Samoa	142	92
Miscellaneous	19	8
Total	*617*	*1,095*
AFRICA—		
Botswana	32	10
Gambia	22	22
Ghana	262	58
Kenya	358	56
Lesotho	53	13
Malawi	57	18
Mauritius	36	13
Nigeria	530	280
Rhodesia	58	6
Sierra Leone	106	13
Sudan	37	3
Swaziland	22	10
Tanzania	302	61
Uganda	75	24
Zambia	123	29
Miscellaneous	79	13
Total	*2,152*	*629*
Unallocated	. .	916
Total	*231,784*	*36,736*

This bilateral aid is channelled through a number of programmes, the most important of which is the Colombo Plan—a loose co-ordinating framework of donors and recipients established in 1950. Through these programmes, Australia undertakes a variety of development projects, balance of payments support programmes, provision of equipment, provision of technical assistance experts, and training of students in Australia.

The following table sets out the numbers of students who have been trained in Australia under the aid programmes.

STUDENTS TRAINED IN AUSTRALIA UNDER AID PROGRAMMES

(Number)

Scheme	*Cumulative Total at 30 June 1969*	*Total in Training at 30 June 1969*	*Number of New Awards 1968–69*
Colombo Plan	8,711	1,478	714
SCAAP*	539	58	86
SPAP*	153	33	39
SEATO	55	10	13
AIAS*	108	6	7
Total	**9,566**	**1,585**	**859**

* The Special Commonwealth African Assistance Plan (SCAAP) was established to provide training awards to Commonwealth countries in Africa. The South Pacific Aid Programme (SPAP) provides the same sort of assistance to the islands and territories of the Pacific. A small training programme known as the Australian International Awards Scheme (AIAS) is intended to meet occasional requests from countries outside these regions, particularly those from the Commonwealth countries of the Caribbean and Mediterranean regions.

Diplomatic representation

The Department of External Affairs is responsible for advising the Minister for External Affairs and the Australian Government on the conduct of foreign affairs and relations with foreign Governments. Its officers staff the Australian diplomatic service and the consular and administrative service.

In December 1969 Australia maintained the following diplomatic and consular missions abroad.

AUSTRALIAN MISSIONS OVERSEAS

Embassies (40)

*Afghanistan**—C/o Australian Commission, Islamabad, Pakistan
Argentina—Calle Rivadavia 1829, Piso 5, Buenos Aires.
Austria—Concordia-platz 2/3, Vienna 1.
Belgium—51/52 Avenue des Arts, Brussels-4.
Brazil—Rua Barao do Flamengo, 22 Caixa Postal 251-ZC-00, Rio de Janeiro G.b.
Burma—88 Strand Road, Rangoon.
Cambodia—94 Moha Vithei Preah Norodom, Phnom Penh.
Chile—Hotel Carrera, Room 1122, Santiago de Chile.
China—Arcadia Building, 402 Tun Hua South Road, Taipei.
Ethiopia†—C/o Australian High Commission, Nairobi, Kenya.
Finland‡—Sergels Torg, 12, Stockholm C.
France—13 Rue Las Cases, Paris 7e.
Germany, Federal Republic of§—Kölnerstrasse 157, Bad Godesberg, Bonn.
Greece—8 Makedonon Street, Athens.
Indonesia—Djalan Thamrin 15, Gambir, Djakarta.
Iran—23 Avenue Arak, Tehran.
Ireland—Fitzwilton House, Wilton Terrace, Dublin 2.
Israel—145 Hayarkon Street, Tel Aviv.
Italy—Via Sallustiana 26, Rome 00187.
Japan—1–14 Mita 2-chome, Minato-ku, Tokyo.
Korea—32–10 Songwoldong, Sudae Moon-ku, Seoul.
Laos—Quartier Phone Xay, Boite Postale No. 292, Vientiane.
Lebanon—S.F.A.H. Building, Kantari St., Beirut.
Mexico—Paseo de la Reforma 195, 5° Paso, Mexico 5, D.F. Mexico City.
Nepal||—C/o Australian High Commission, New Delhi, India.
The Netherlands—Lange Voorhout 18, The Hague.
Peru¶—Plaza Building, Cnr Avenida Arenales and Natalio Sanchee, Lima.
The Philippines—L & S Building, 1414 Roxas Street, Manila.
South Africa—1001 Colonial Mutual Building, 106 Adderly Street, Capetown.
Spain—General Sanjurjo 44, Madrid.
Sweden—Sergelstorg 12, Stockholm 40.
Switzerland††—C/o Australian Embassy, Vienna, Austria.
Thailand—Anglo-Thai Building, 64 Silom Road, Bangkok.
Turkey—83 Nenehatun Caddesi, Gazi Osman Pasa, Ankara.
Union of Soviet Socialist Republics—13 Kropotkinsky Pereulok, Moscow.
United Arab Republic—1097 Corniche el Nil, Garden City, Cairo.
United States of America—1700 Massachusetts Avenue, Washington, D.C., 20036.
Uruguay¶—C/o Australian Embassy, Buenos Aires, Argentina.
Vietnam—Caravelle Building, Place Lam Son, Saigon.
Yugoslavia—191–3, Bulevar Revolucije, Belgrade.

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* The High Commissioner for Pakistan is concurrently Ambassador to Afghanistan.

† The Australian High Commissioner in Kenya is concurrently Ambassador to Ethiopia.

‡ The Australian Ambassador to Sweden is concurrently Ambassador to Finland.

§ The Australian Ambassador is also head of the Australian Military Mission in Berlin.

|| The Australian High Commissioner in India is concurrently Ambassador to Nepal.

¶ The Australian Ambassador to Argentina is concurrently Ambassador to Peru and Uruguay.

†† The Australian Ambassador to Austria is concurrently Ambassador to Switzerland.

High Commissions (14)

*Britain**—Australia House, The Strand, London, W.C.2.
Canada—Royal Bank Chambers, 90 Sparks Street, Ottawa, 4, Ontario.
Ceylon—3 Cambridge Place, Colombo, 7.
Ghana—6/26 Milne Avenue, Airport Residential Area, Accra.
India†—No. 1/50-G Shantipath, Chanakyapuri, New Delhi.
Kenya—Development House, Government Road, Nairobi.
Malaysia—44 Jalan Ampang, Kuala Lumpur.
Malta—Airways House, Gaiety Lane, Cnr High Street, Sliema, Valletta.
New Zealand—I.C.I. House, Molesworth Street, Wellington, N1.
Nigeria—Investment House, 21–25 Broad Street, Lagos.
Pakistan—National Bank of Pakistan Building, Islamabad.
Singapore—Thornycroft House, 201 Clemenceau Ave, Singapore.
Tanzania—National Bank of Commerce Building, Independence Avenue, Dar es Salaam.
Uganda‡—Development House, Government Road, Nairobi.

Other (17)

Military Mission in Berlin§—Olympia Stadium, Charlottenburg 9, Berlin.
Mission to—
  European Atomic Energy Community (*Euratom*)—51/52 Avenue des Arts, Brussels 4, Belgium
  European Coal and Steel Community—51/52 Avenue des Arts, Brussels 4, Belgium.
  European Economic Community—51/52 Avenue des Arts, Brussels-4.
  United Nations (*New York*)—750 Third Avenue, New York 10017.
  United Nations (*Geneva*)—56–58 Rude de Moillebeau, Petit Saconnex, 1211, Geneva 19.
Consulate-General in—
  Geneva—56–58 Rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.
  New York—International Building, 636 Fifth Avenue, New York 10020.
  San Francisco—350 Post Street, Union Square, San Francisco, California 94108.
  Milan—Via Turati 40, Milan 20121.
Consulate in—
  Denmark—Hammerensgade 4, 1267, Copenhagen, K.
  Germany, Federal Republic of—Hamburg 36, Neuerwall 39, Hamburg.
  New Caledonia—45 Tce, Rue de Verdun, Noumea.
  Portuguese Timor—Dili.
  South Africa—Standard Bank Building, Church Square, Pretoria.
Commission in—
  Fiji—C.M.L.A. Building, 3 Central Street, Suva.
Representative in—
  Nauru

The Department of External Affairs is responsible for the control and administration of all the diplomatic and consular missions listed above with the exception of the High Commission, London, which is the responsibility of the Prime Minister's Department.

Specialist officers of the Department of Trade, other Commonwealth Government Departments and the Defence Services stationed abroad are attached to Australian diplomatic or consular missions. Senior attached officers are in some cases accredited to the missions with diplomatic or consular ranks approved by the Minister for External Affairs. In addition, the Department of Trade and Industry maintains Trade Commissioner posts which engage in trade promotion in a number of cities where Australia does not have diplomatic or consular representation (for complete list of Trade Commissioner posts *see* pages 118–19).

The Department of Immigration similarly maintains offices overseas which engage in recruitment of migrants. A complete list of these offices is given on pages 119–20.

Agents-General for States

From early times the Australian colonies maintained agents in London to encourage immigration and to carry out commercial and financial negotiations. Since federation the States have continued to maintain Agents-General in London, all of whom work in close co-operation with the High

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* Administered by Prime Minister's Department. † The Australian High Commissioner in India is concurrently Ambassador to Nepal. ‡ The Australian High Commissioner in Kenya is concurrently High Commissioner to Uganda. § The Australian Ambassador to Germany is also head of the Australian Military Mission in Berlin.

Commissioner for Australia at Australia House, The Strand, London. The addresses of the Agents-General are as follows: New South Wales—56 The Strand, London, W.C.2; Victoria—Victoria House, Melbourne Place, The Strand, London, W.C.2; Queensland—392 The Strand, London, W.C.2; South Australia—South Australia House, 50 The Strand, London, W.C.2; Western Australia—Western Australia House, 115 The Strand, London, W.C.2; Tasmania—458 The Strand, Charing Cross, London, W.C.2.

Diplomatic representatives in Australia

There are forty-one non-Commonwealth and ten Commonwealth countries represented by diplomatic missions in Australia.

The following list shows the addresses of the overseas representatives in Australia. Full details of Commonwealth and foreign representation in Australia may be obtained from publications issued by the Department of External Affairs, Canberra. Consular representatives are not included. Particulars of these are contained in a publication *Consular and Trade Representatives in Australia*, issued by the Department of External Affairs, Canberra. There are about 300 such representatives in Australia, and sixty countries are represented.

DIPLOMATIC REPRESENTATIVES IN AUSTRALIA

Embassies (41)

Argentina—58 Mugga Way, Red Hill, Canberra, A.C.T. 2603.
Austria—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T. 2601.
Belgium—19 Arkana Street, Yarralumla, Canberra, A.C.T. 2600.
Brazil—6 Monaro Crescent, Forrest, Canberra, A.C.T. 2603.
Burma—85 Mugga Way, Red Hill, Canberra, A.C.T. 2603.
Cambodia—5 Canterbury Crescent, Deakin Canberra, A.C.T. 2600.
Chile—26 Melbourne Avenue, Deakin, Canberra, A.C.T. 2600.
China—70 Empire Circuit, Forrest, Canberra, A.C.T. 2603.
Denmark—Suite 501, C.M.L. Building, University Avenue, Canberra, A.C.T. 2601.
Finland—83 Endeavour Street, Red Hill, Canberra, A.C.T. 2603.
France—6 Darwin Avenue, Yarralumla, Canberra, A.C.T. 2600.
Germany, Federal Republic of—Empire Circuit, Yarralumla, Canberra, A.C.T. 2600.
Greece—22 Arthur Circle, Forrest, Canberra, A.C.T. 2603.
Indonesia—4 Hotham Crescent, Deakin, Canberra, A.C.T. 2600.
Ireland—Bank House, Civic Square, Canberra, A.C.T. 2601.
Israel—Turrana Street, Yarralumla, Canberra, A.C.T. 2600.
Italy—27 State Circle, Deakin, Canberra, A.C.T. 2600.
Japan—3 Tennyson Crescent, Forrest, Canberra, A.C.T. 2603.
Korea—55 Mugga Way, Red Hill, Canberra, A.C.T. 2603.
Laos—71 National Circuit, Deakin, Canberra, A.C.T. 2600.
Lebanon—2 Trelawney Street, Woollahra, Sydney, N.S.W. 2025.
Mexico—5 Nuyts Street, Red Hill, Canberra, A.C.T. 2603.
*Nepal**—11–7, 4-chome, Minami-Azabu, Minato-ku, Tokyo, Japan.
The Netherlands—120 Empire Circuit, Yarralumla, Canberra, A.C.T. 2600.
Norway—3 Zeehan Street, Red Hill, Canberra, A.C.T. 2603.
Peru—17 Canterbury Crescent, Deakin, Canberra, A.C.T. 2600
The Philippines—Moonah Place, Yarralumla, Canberra, A.C.T. 2600.
Portugal—22 Bougainville Street, Manuka, Canberra, A.C.T. 2603.
Romania†—No. 32–1, 5-chome, Yoyogi, Shibuya-ku, Japan.
South Africa—Cnr. State Circle and Rhodes Place, Yarralumla, Canberra, A.C.T. 2600.
Spain—32 Melbourne Avenue, Deakin, Canberra, A.C.T. 2600.
Sweden—Turrana Street, Yarralumla, Canberra, A.C.T. 2600.
Switzerland—44 Endeavour Street, Red Hill, Canberra, A.C.T. 2603.
Thailand—9 Daly Street, Deakin, Canberra, A.C.T. 2600.
Turkey, Republic of—9 Sirius Place, Red Hill, Canberra, A.C.T. 2603.
Union of Soviet Socialist Republics—78 Canberra Avenue, Griffith, Canberra, A.C.T. 2603.
United Arab Republic—125 Monaro Crescent, Red Hill, Canberra, A.C.T. 2603.
United States of America—State Circle, Yarralumla, Canberra, A.C.T. 2600.
Uruguay—82 Dominion Circuit, Deakin, Canberra, A.C.T. 2600.
Vietnam—39 National Circuit, Forrest, Canberra, A.C.T. 2603.
Yugoslavia, Socialist Federal Republic of—27 Endeavour Street, Red Hill, Canberra, A.C.T. 2603.

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* The Nepalese Ambassador to Japan is concurrently Ambassador to Australia and to New Zealand. † The Romanian Ambassador to Japan is concurrently Ambassador to Australia.

High Commissioners (10)

Britain—Commonwealth Avenue Canberra, A.C.T. 2600.
Canada—Commonwealth Avenue, Canberra, A.C.T. 2600.
Ceylon—35 Empire Circuit, Forrest, Canberra, A.C.T. 2603.
Ghana—35 Endeavour Street, Red Hill, Canberra, A.C.T. 2603.
India—92 Mugga Way, Red Hill, Canberra, A C.T. 2603.
Malaysia—71 State Circle, Yarralumla, Canberra, A.C.T. 2600.
Malta—261 La Perouse Street, Red Hill, Canberra, A.C.T. 2603.
New Zealand—M.L.C. Building, London Circuit, Civic Centre, Canberra, A.C.T. 2601.
Pakistan—59 Franklin Street, Forrest, Canberra, A.C.T. 2603.
Singapore—81 Mugga Way, Red Hill, Canberra, A.C.T. 2603.

Overseas trade representation

The Australian Trade Commissioners Service

The Department of Trade maintains Trade Commissioners at forty-seven posts in thirty-seven countries. Twenty-eight editions of the Department of Trade's promotion periodical *Austral News* now circulate in more than 100 countries in four languages. (*See also* Australian Trade Missions in the chapter Overseas Transactions.)

The addresses of Australian Trade Commissioner Posts overseas are shown in the following list.

Trade Commissioner Service of the Commonwealth of Australia

Argentina—Australian Embassy, Seccion Commercial, Lavalle 1625 Piso 11, Buenos Aires.
Austria—Australian Embassy, Concordia-platz 2/3, Vienna 1.
Bahrain—Almoayyed Building, Government Road, Bahrain.
Belgium—Australian Embassy, 51/52 Avenue des Arts, Brussels-4.
Britain—Australia House, The Strand, London, W.C.2.
Canada—1155 Dorchester Boulevard West, Montreal 2, P.Q.; 1030 W. Georgia Street, Vancouver 5, B.C.; Australian High Commission, 90 Sparks Street, Ottawa 4. Ontario.
Ceylon—Australian High Commission, 3 Cambridge Place, Colombo 7.
Chile—Australian Embassy, Hotel Carera Hilton, Santiago.
China (Taiwan)—Australian Embassy 400 Tun Hua South Road, Taipei.
France—50 Avenue Des Champs Elysees, Paris, 8e.
Germany, Federal Republic of—Australian Embassy, Kölnerstrasse 157, Bad Godesberg, Bonn; Australian Consulate, Neuer Wall 39, Hamburg 36.
Greece—Australian Embassy, 8 Makedonon Street, Athens.
Hong Kong—Union House, Chater Road, Hong Kong.
India—1/509 Shantipath, Chanakyapuri, New Delhi.
Indonesia—C/o Australian Embassy, Djalan Thamrin 15, Djakarta.
Iran—23 Avenue Arak, Tehran.
Italy—Australian Embassy, Via Sallustiana 26, Rome; Via Turati 40, Milan.
Japan—Sankaido Building, 9–13 Akasaka 1-Chome, Minato-ku, Tokyo; Asahi Seimei Building, 50, 5-Chome, Koraibashi-suji, Higashi-ku, Osaka.
Kenya—Development House, Government Road, Nairobi.
Lebanon—Australian Embassy, S.F.A.H. Building, Kantari Street, Beirut.
Malaysia—117 Jalan Ampang, Kuala Lumpur.
Malta—Australian High Commission, Dolphin Court, Embassy Way, Ta'xbiex.
Mexico—Pases de la Reforma, 195, 50 Piso, Mexico 5.
The Netherlands—143 Koninginnegracht, The Hague.
New Zealand—Australian High Commission, I.C.I. House, Molesworth Street Wellington. A.N.Z. House, 203 Queen Street, Auckland C.1; Bank of New Zealand House, Cathedral Square, Christchurch.
Pacific Islands—C/o Department of Trade and Industry, A.N.Z. Bank Building, cnr Pitt and Hunter Streets, Sydney, N.S.W.
Pakistan—Hotel Metropole, Victoria Road, Karachi 4.
Peru—Australian Embassy, Plaza Building, cnr Avenida Arenales and Natalio Sanchez, Lima.
The Philippines—Australian Embassy, 1414 Roxas Boulevard, Manila.
Singapore—Australian High Commission, 201 Clemenceau Avenue, Singapore 9.
South Africa—St. Mary's Building, 85 Eloff Street, Johannesburg; Mobil House, Hans Strijdom Avenue, Capetown.
Sweden—Australian Embassy, Sergelstorg 12, Stockholm 40.

Switzerland—Australian Consulate-General, 56–58 Rue de Moillebeau, Petit Saconnex 1211, Geneva 19.

Thailand—Australian Embassy, Anglo-Thai Building, 64 Silom Road, Bangkok.

Trinidad—72 South Quay, Port-of-Spain, Trinidad, W.I.

United Arab Republic—Australian Embassy, 1097 Corniche el Nil, Garden City, Cairo.

United States of America—Paramount Building, 1735 Eye Street, N.W. Washington, D.C.; Australian Consulate-General, 636 Fifth Avenue, New York 10020, New York; Australian Consulate-General, Crocker Plaza, 1 Post Street, San Fransico, California; 3600 Wiltshire Boulevard, Los Angeles 5, California.

Australian Trade Correspondents and Marketing Officers

Australian Trade Correspondents and Marketing Officers have no official status but supplement the work of the Trade Commissioner Service. Correspondents are located in Addis Abbaba, Ethiopia; and Istanbul, Turkey; Mozambique; Port Louis, Mauritius; Suva, Fiji; Tel Aviv, Israel. Marketing Officers are located in Bombay and Calcutta, India; Brussels, Belgium; Cairo, Egypt; Colombo, Ceylon; Dublin, Ireland; Madrid, Spain; Rangoon, Burma; Rio de Janeiro, Brazil; and Seoul, Korea.

Trade Commissioners of overseas governments in Australia

Britain—Senior British Trade Commissioner—Commonwealth Avenue, Canberra. A.C.T.

British Trade Commissioners—Gold Fields House, Sydney Cove, Sydney, N.S.W.; C.M.L. Building, 330 Collins Street, Melbourne, Vic.; M.L.C. Building, 243 Edward Street, Brisbane, Qld; F.C.A. Building, Franklin Street, Adelaide, S.A.; A.N.Z. House, 84 St George's Terrace, Perth, W.A.

Office of the Fiji Government Representative—38–40 Martin Place, Sydney, N.S.W.

Canada—Canadian Trade Commissioners—A.M.P. Building, Circular Quay, Sydney, N.S.W.; 17th Floor, Prince's Gate East Tower, Melbourne, Vic.

Ceylon—Ceylon Trade Commissioner—66 Pitt Street, Sydney, N.S.W.

China—300 George Street, Sydney, N.S.W.

India—Indian Trade Commissioner—167–187 Kent Street, Sydney, N.S.W.

Malaysia—Malaysian Trade Commissioner—50 Young Street, Sydney, N.S.W.

New Zealand—Senior New Zealand Trade Commissioner—280–288 George Street, Sydney, N.S.W.

New Zealand Government Trade Commissioners—330 Collins Street, Melbourne, Vic.; M.M.I. Building, 344 Queen Street, Brisbane, Qld.

Pakistan—39–41 York Street, Sydney, N.S.W.

South Africa—South African Trade Commissioner—622 St Kilda Road, Melbourne, Vic.

Sweden—14th Floor, Prince's Gate West Tower, Melbourne, Vic.

Commonwealth Migration Offices overseas

The Department of Immigration has established offices overseas to handle migration matters, and in some countries regional officers are provided. Inquiries and applications may also be made at any Australian diplomatic, consular or trade post overseas. Special facilities for migration business are available as follows.

Argentina—Australian Embassy, Calle Rivadavia 1829, Piso 5, Buenos Aires.

Austria—Australian Embassy, Migration Office, Teinfaltstrasse 1, Vienna.

Belgium—Australian Embassy, Migration Office, 51/52 Avenue des Arts, Brussels-4.

Britain—'Canberra House', Migration Office, 10–16 Maltravers Street, The Strand, London, W.C.2.

Ceylon—Australian High Commission, 3 Cambridge Place, Colombo 7, P.O. Box 742.

Denmark—Australian Consulate, Hammerensgade 4, 1267 Copenhagen, K.

Fiji—Australian Commission, C.M.L.A. Building, 3 Central Street, Suva.

Finland—Australian Information Office Fabianinkatu, 29–31, Helsinki.

France—Australian Embassy, Migration Office, 28 Rue de la Pepiniere, Paris, 8e.

Germany, Federal Republic of—Australian Embassy Migration Office, Hohenzollernring 103, Cologne.

Greece—Australian Embassy, Migration Office, 8 Makedonon Street Athens.

Hong Kong—Australian Government Migration Office, Rooms 901–904, 9th Floor, International Building, Connaught Road, Central Hong Kong.

India—Office of the Australian Deputy High Commissioner, Mercantile Bank Building, 52 Mahatma Ghandi Road, Bombay; Office of the Australian Deputy High Commissioner, 9 Shakespeare Sarani, Calcutta.

Ireland—Australian Embassy, 33 Fitzwilliam Square, Dublin.

Italy—Australian Embassy, Migration Office, Via Magenta 5, Rome.

Kenya—Australian High Commission, 3rd Floor, Development House, Government Road, Nairobi.

Lebanon—Australian Embassy, Migration Office, 7th Floor, S.F.A.H. Building, Kantari Street, Beirut.

Malta—Australian Migration Office, Australian High Commission, Airways House, Gaiety Lane, cnr High Street, Sliema, Valletta.

The Netherlands—Australian Embassy, Migration Office, Mauritskade 19, The Hague.

Norway—Australian Information Office, Jernbanetorvet 2, Oslo.

Spain—Australian Embassy, Calle de General Sanjurjo 44, Madrid 3.

Sweden—Australian Embassy, Migration Office, Sergelstorg 12, Stockholm 40.

Switzerland—Australian Consulate-General, 56–58 Rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.

Turkey—Australian Embassy, 83 Nenehatun Caddesi, Gezi Osman Pasa, Ankara.

United Arab Republic—Australian Embassy, Migration Office, 12 Hassan Sabri Street, Zamalek, Cairo.

United States of America—Australian Consulate-General, International Building, 636 Fifth Avenue, New York 10020, New York.

Australian Consulate-General, Aetna and Mutual Building, Crocker Plaza, 1 Post Street, San Francisco 8, California, 94108.

Yugoslavia—Australian Embassy, Migration Office, Bulevar Revolucije 191–193, Belgrade.

CHAPTER 7

POPULATION

Statistics in this chapter cover, in the main, the year 1969. More detailed figures will be found in the annual bulletin *Demography*, and current statistics are published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and the mimeographed series *Summary of Vital and Population Statistics* and *Overseas Arrivals and Departures*. The final detailed results of the various population censuses are published in a series of printed volumes and parts (*see* list at end of this Year Book, *also* the chapter Miscellaneous—Statistical and other official publications of Australia). Pending publication of the 1966 printed volumes a series of mimeographed bulletins have been issued containing the census results in summary form.

With the proclamation of the *Constitution Alteration* (*Aboriginals*) 1967 on 10 August 1967 the provision of the Constitution in Section 127 requiring the exclusion of Aborigines in reckoning the numbers of the people of the Commonwealth or of a State or other part of the Commonwealth, was repealed. Accordingly, population statistics for all dates subsequent to 10 August 1967 no longer exclude full-blood Aborigines. Estimates for earlier periods back to 30 June 1961 have also been revised to include these Aborigines. However, detailed analyses of the population enumerated in the censuses of June 1961 and 1966 exclude full-blood Aborigines. Particulars of the Aboriginal population are given on pages 138–42 in this chapter.

Types of population statistics

Statistics of the population and its characteristics for Australia or the component States and Territories or other constituent areas at specific dates are divided in three main ways.

(i) *Those ascertained by census enumeration.* The population censuses result in comprehensive statistics of characteristics of the population, such as age, sex, birthplace, etc.

(ii) *Those ascertained by 'population counts'.* From time to time in specific areas there are additional enumerations of the population, which are known as population counts, because normally very little information other than the number of persons and their sex is obtained.

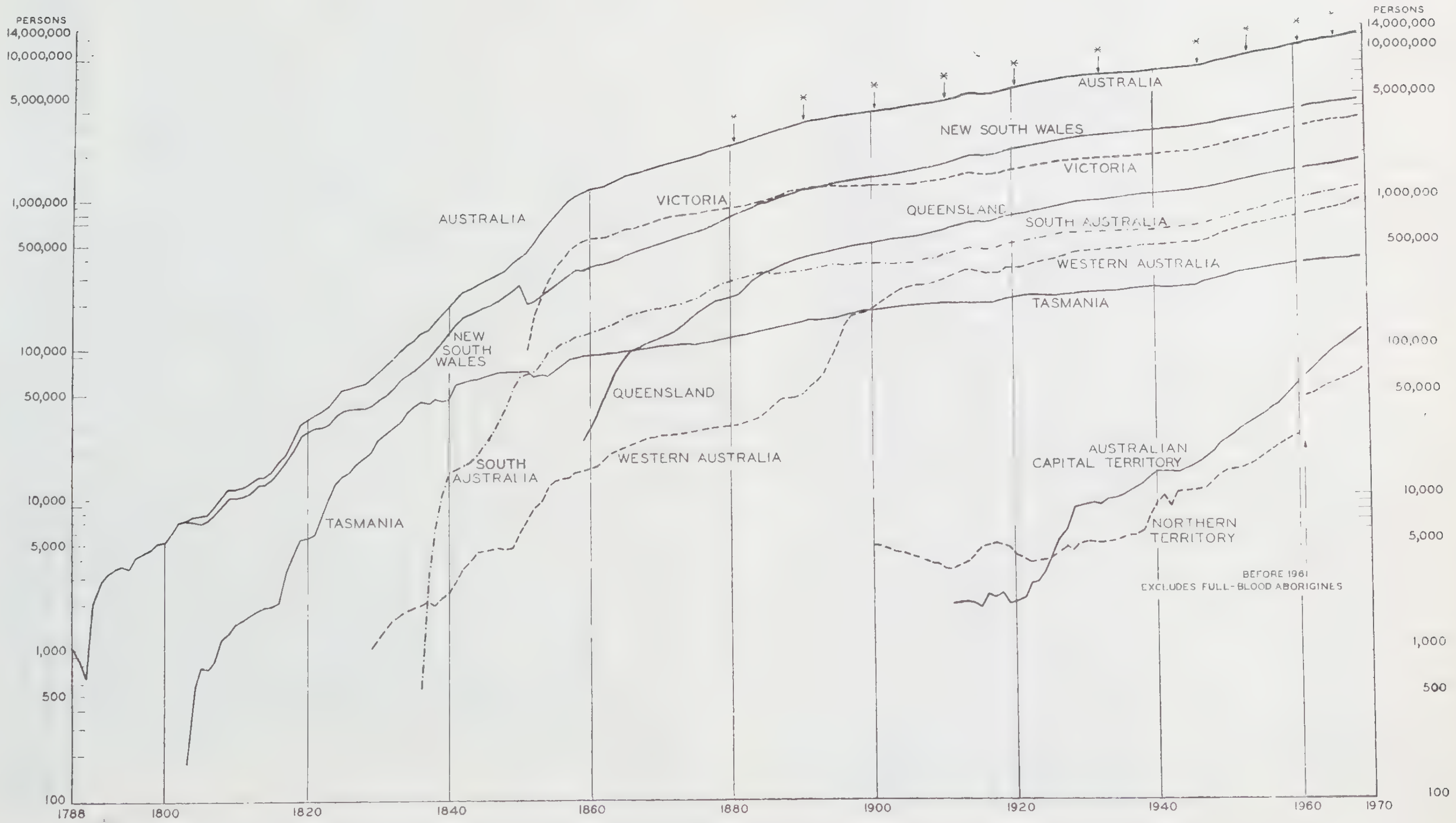
(iii) *Estimates of number and sex.* Estimates for dates subsequent to a census, for Australia as a whole, take account of natural increase and net overseas migration since the last census. Estimates for States and Territories are approximate, since complete records of interstate migration are not available. The population in each State and Territory is estimated by adding to the population ascertained at the census the natural increase and the recorded net gain to Australia from overseas migration for that State or Territory; gains and corresponding losses that result from movements between States and Territories are also taken into account in so far as they are recorded as transfers of residence under child endowment procedures or Commonwealth electoral procedures. These methods are supplemented by results of any special count or sample survey. Holiday, business, or other similar short-term movements between the States and Territories subsequent to the census are not taken into account.

Estimates carried forward in this way eventually reach the point when another census is taken, and the numbers so ascertained supersede those resulting from the estimates. In the light of the census results the estimates for the newly completed intercensal period are revised to adjust for the differences between the new census result and the population at the census date estimated on the basis of the previous census. This is to bring intercensal estimates into line with the two census results and thus effect adjustment for unrecorded or inaccurately recorded movement of population in the intercensal period. Such a revision is made when the preliminary (field count) results of a census become available. Further revision may be necessary when the final results of a census become available.

Final revised estimates become the permanent population estimates. A mean population for twelve month periods is required for certain purposes, and is calculated by the method described on page 132. As populations at specific dates are used in these calculations, consequential revisions are made to mean populations when the estimates for specific dates are revised as described above.

POPULATION OF AUSTRALIA, 1788 TO 1969

LOGARITHMIC GRAPH



NOTE: THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE

* AUSTRALIAN CENSUS

PLATE 16

The method used for estimating State and Territory populations, as described in (iii) *above is different from that used prior to June 1961* (for particulars *see* Year Book No. 52, page 191). Population estimates subsequent to the 1961 Census are based on a method which excludes holiday, business or other similar short-term movements since the census between States and Territories. As a consequence, marked quarterly seasonal movements in some States due to interstate holiday movements are reflected in population figures prior to 1961 but not for subsequent years. This has some effect on the continuity of the series of mean population figures and should be borne in mind when making calculations which use mean populations as a basis (*see* page 132). The following two aspects of seasonal movements, however, are reflected in the estimated populations of the States since 30 June 1961.

(i) People who were on holiday or other short-term travel interstate at the time of the census are counted in the State where they spent census night.

(ii) There is some seasonal movement in the population of Australia as a whole which is due to movements of tourists and other visitors from overseas and of Australians travelling overseas for short periods.

All population statistics shown in this issue of the Year Book for dates up to and including June 1966, and all mean populations for calendar years up to 1965 and financial years up to 1965–66, are final. Population statistics for dates or years subsequent to these will be revised in accordance with the results of the next census.

The population survey

The population survey is the general title given to the household sample survey carried out in February, May, August, and November of each year in all States and Territories. Emphasis in the survey is placed on the collection of data on demographic and labour force characteristics, the principal survey component being referred to as the labour force survey. The remaining part of the population survey consists of supplementary collections which are carried out from time to time in conjunction with the labour force survey. The population survey was instituted in November 1960 in the six State capital cities and was subsequently extended, in February 1964, to include non-metropolitan areas. About 38,000 households, representing one per cent of all households, are selected by area sampling methods and enumerated each quarter, the information being obtained by carefully chosen and specially trained interviewers during a four-week period on each occasion. For information about the results of the surveys *see* the chapter Employment and Unemployment.

The census

In Year Book No. 53 a special article was included outlining the history, purposes, legal basis, organisation, and publication of results of the population census in Australia (*see* pages 164 to 170 of that issue), but considerations of space preclude its repetition in this issue.

Early 'musters'

Although regular censuses were not instituted in the several colonies until the years specified in the table below, population returns in one form or another have existed from a very early period in the history of Australia. The earliest enumerations were known as 'musters', and although the actual results of very few of them have been preserved, it is probable that during the early days of colonisation they were of frequent occurrence. The first official 'muster' was taken in 1788 soon after the new settlement at Sydney Cove was formed, and in 1803 the first 'muster' of convicts in Van Diemen's Land (now Tasmania) was conducted.

Development of the census

The first regular census in Australia was taken in New South Wales in November 1828, and included the population of Moreton Bay (now Queensland) but not Van Diemen's Land (Tasmania). Particulars were asked concerning the names, ages and civil conditions of the inhabitants. The next census was taken in 1833, and was followed by another in 1836, when arrangements were made for the enumeration of the population of the newly-established settlement at Port Phillip, (Victoria). The first censuses taken in Tasmania, Victoria and Queensland as separate colonies were in 1841, 1854 and 1861 respectively, The first regular census in South Australia was taken in 1844 and in Western Australia in 1848. The 1881 census was the first simultaneous census taken in Australia and formed part of the first simultaneous census of the British Empire.

The following table shows the total population recorded at each census conducted prior to 1891.

POPULATION ENUMERATED(*a*), CENSUSES IN AUSTRALIA, 1828 TO 1886

Date	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1828– November	36,598	..	..	..	..	..	..	..	..
1833– 2 September	60,794	..	..	..	..	..	..	..	..
1836– 2 September	77,096	..	..	..	..	..	..	..	..
1841– 2 March	130,856	..	..	..	..	..	..	..	..
27 September	..	..	..	..	..	50,216	..	..	..
1844–26 February	..	..	..	17,366	..	..	..	..	..
1846–26 February	..	..	..	22,390	..	..	..	..	..
2 March	189,609	..	..	..	..	..	..	..	..
1847–31 December	..	..	..	..	..	70,164	..	..	..
1848–10 October	..	..	..	..	4,622	..	..	..	..
1851– 1 January	..	..	..	63,700	..	..	..	..	..
1 March	268,344	..	..	..	..	70,130	..	..	..
1854–26 April	..	(*b*)234,298	..	..	..	..	..	..	..
30 September	..	..	..	..	11,743	..	..	..	..
1855–31 March	..	..	..	85,821	..	..	..	..	..
1856– 1 March	269,722	..	..	..	..	..	..	..	..
1857–29 March	..	408,998	..	..	..	..	..	..	..
31 March	..	..	..	..	..	81,492	..	..	..
1859–31 December	..	..	..	..	14,837	..	..	..	..
1861– 7 April	350,860	538,628	(*b*)30,059	126,830	..	89,977	..	..	..
1864– 1 January	..	..	61,467	..	..	..	..	..	..
1866–26 March	..	..	..	163,452	..	..	..	..	..
1868– 2 March	..	..	99,901	..	..	..	..	..	..
1870– 7 February	..	..	..	..	..	99,328	..	..	..
31 March	..	..	..	..	24,785	..	..	..	..
1871– 2 April	502,998	730,198	..	185,626	..	..	..	..	..
1 September	..	..	120,104	..	..	..	..	..	..
1876–26 March	..	..	..	213,271	..	..	..	..	..
1 May	..	..	173,283	..	..	..	..	..	..
1881– 3 April	749,825	861,566	213,525	276,414	29,708	115,705	(*c*)3,451	..	2,250,194
1886– 1 May	..	..	322,853	..	..	..	..	..	..

(*a*) Excludes full-blood Aborigines. (*b*) Previously included with New South Wales. (*c*) Included with South Australia for the censuses of 1866, 1871 and 1876. Actually Northern Territory was not transferred to the Commonwealth until 1 January 1911.

Population recorded at censuses

State and Territorial populations recorded at the Australia-wide censuses taken over the period 1881 to 1966 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for the censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in the chapter Discovery, Colonisation and Federation of Australia (page 5).

POPULATION(*a*), BY SEX: AUSTRALIAN CENSUSES, STATES AND TERRITORIES 1881 TO 1966

Census	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(b)*	*Aust.*
MALES									
3 April 1881	410,211	451.623	125,325	146,183	17,062	61,162	3,347	..	1,214,913
5 April 1891	609,666	598,222	223.779	162,241	29,807	77,560	4,560	..	1,705,835
31 March 1901	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..	1,977,928
3 April 1911	857.698	655,591	329,506	207,358	161.565	97,591	2,734	992	2,313,035
4 April 1921	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567	2,762,870
30 June 1933	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805	3,367,111
30 June 1947	1,492.211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092	3,797,370
30 June 1954	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229	4,546,118
30 June 1961	1,972,909	1,474.395	774,579	490,225	375,452	177,628	16,206	30,858	5,312,252
30 June 1966	2,124,462	1,613,904	843,897	548,530	426,691	187,390	21,508	49,977	5,816,359

For footnotes *see* end of table next page.

POPULATION(*a*), BY SEX: AUSTRALIAN CENSUSES, STATES AND TERRITORIES 1881 TO 1966—*continued*

Census		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(b)*	*Aust.*
					FEMALES					
3 April 1881	.	339,614	409,943	88,200	130,231	12,646	54,543	104	..	1,035,281
5 April 1891	.	517,471	541,866	169,939	153,292	19,975	69,107	338	..	1,471,988
31 March 1901	.	644,841	597,350	221,126	177,861	71,249	82,851	595	..	1,795,873
3 April 1911	.	789,036	659,960	276,307	201,200	120,549	93,620	576	722	2,141,970
4 April 1921	.	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005	2,672,864
30 June 1933	.	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142	3,262,728
30 June 1947	.	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,813	3,781,988
30 June 1954	.	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086	4,440,412
30 June 1961	.	1,944,104	1,455,718	744,249	479,115	361,177	172,712	10,889	27,970	5,195,934
30 June 1966	.	2,109,360	1,605,622	819,788	543,345	409,982	184,045	15,925	46,036	5,734,103
					PERSONS					
3 April 1881	.	749,825	861,566	213,525	276,414	29,708	115,705	3,451	..	2,250,194
5 April 1891	.	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..	3,177,823
31 March 1901	.	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..	3,773,801
3 April 1911	.	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	1,714	4,455,005
4 April 1921	.	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
30 June 1933	.	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
30 June 1947	.	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905	7,579,358
30 June 1954	.	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	30,315	8,986,530
30 June 1961	.	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186
30 June 1966	.	4,233,822	3,219,526	1,663,685	1,091,875	836,673	371,435	37,433	96,013	11,550,462

(*a*) Excludes full-blood Aborigines. (*b*) Part of New South Wales before 1911.

Increase since 1901 census

The increases in the populations of the several States and Territories and of Australia as a whole during the last seven intercensal periods are shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION: INTERCENSAL INCREASES(*a*), STATES AND TERRITORIES 1901 TO 1966

State or Territory		*1901–1911 (10 years)*	*1911–1921 (10 years)*	*1921–1933 (12¼ years)*	*1933–1947 (14 years)*	*1947–1954 (7 years)*	*1954–1961 (7 years)*	*1961–1966 (5 years)*
				NUMERICAL INCREASE				
New South Wales(*b*)	.	293,602	453,637	500,476	383,991	438,691	493,484	316,809
Victoria . .	.	114,481	215,729	288,981	234,440	397,640	477,772	289.413
Queensland . .	.	107,684	150,159	191,562	158,881	211,844	200,569	144,857
South Australia .	.	50,212	86,602	85,789	65,124	151,021	172,246	122,535
Western Australia .	.	97,990	50,618	106,120	63,628	137,291	96,858	100,044
Tasmania . .	.	18,736	22,569	13,819	29,479	51,674	41,588	21,095
Northern Territory.	.	−1,501	557	983	6,018	5,601	10,626	10,338
A.C.T.(*c*) . .	.	..	858	6,375	7,958	13,410	28,513	37,185
Australia .	.	**681,204**	**980,729**	**1,194,105**	**949,519**	**1,407,172**	**1,521,656**	**1,042,276**
			AVERAGE ANNUAL RATE OF INCREASE—PER CENT					
New South Wales(*b*)	.	1.97	2.46	1.76	0.99	1.98	1.94	1.57
Victoria . .	.	0.91	1.53	1.42	0.87	2.56	2.58	1.90
Queensland . .	.	1.98	2.24	1.86	1.11	2.53	2.04	1.84
South Australia .	.	1.32	1.94	1.31	0.76	3.05	2.83	2.41
Western Australia .	.	4.36	1.66	2.29	0.97	3.51	2.03	2.58
Tasmania . .	.	1.04	1.12	0.51	0.87	2.65	1.82	1.18
Northern Territory.	.	−3.67	1.57	1.87	5.93	6.12	7.37	6.68
A.C.T.(*c*) . .	.	..	4.14	10.71	4.65	8.70	9.93	10.29
Australia .	.	**1.67**	**2.01**	**1.63**	**0.96**	**2.46**	**2.26**	**1.91**

(*a*) Excludes full-blood Aborigines. (*b*) Includes Australian Capital Territory before 1911. (*c*) Part of New South Wales before 1911.

Minus sign (−) denotes decrease.

Growth and distribution of population

Growth of population

The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31 December in 1900 and thereafter at decennial intervals to 1960, and for each year from 1965 to 1969.

ESTIMATED POPULATION(*a*), BY SEX: STATES AND TERRITORIES DECEMBER, 1900 TO 1969

31 Dec.—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(b)*	*Aust.*
					MALES				
1900 .	716,047	601,773	274,684	180,349	110,088	89,763	4,288	..	1,976,992
1910 .	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920 .	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	1,062	2,751,730
1930 .	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940(*c*) .	1,402,297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1950 .	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9,414	13,021	4,191,445
1960 .	1,951,907	1,453,815	766,448	483,802	372,665	180,511	14,785	29,140	5,253,073
1965 .	2,112,610	1,602,058	841,926	544,257	427,330	186,483	30,632	48.333	5,793,629
1966 .	2,143,521	1,628,672	855,726	554,810	439,680	188,539	31,920	51,846	5,894,714
1967 .	2,180,474	1,655,748	870,770	561,833	454,743	191,446	33,623	55,867	6,004,504
1968 .	2,222,174	1,682,914	887,288	570,986	473,779	194,665	36,112	60,636	6,128,554
1969 .	2,273,554	1,716,126	904,002	580,684	491,737	197,289	37,644	65,821	6,266,857
					FEMALES				
1900 .	644,258	594,440	219.163	176,901	69,879	83,137	569	..	1,788.347
1910 .	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920 .	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	910	2,659,567
1930 .	1,251,934	900,183	435,177	285.849	198,742	111,792	1,365	3,987	3,189,029
1940(*c*) .	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1950 .	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1960 .	1,925,354	1,434,475	735,838	473,220	358,368	175,458	10,002	26,132	5,138,847
1965 .	2,098,439	1,593,802	817,497	538,701	410,918	183,125	24,832	44,465	5,711,779
1966 .	2,129,786	1,621,198	832,156	549,780	423,005	185,366	26,179	48,203	5,815,673
1967 .	2,166,341	1,647,509	847,496	556,644	438,020	188,182	27,884	52,309	5,924,385
1968 .	2,206,586	1,672,847	864,540	565,401	456,979	191,366	30,443	56,585	6,044,747
1969 .	2,256,364	1,704,016	881,392	574,619	475,003	193,862	32,013	61,901	6,179,170
					PERSONS				
1900 .	1,360,305	1,196,213	493,847	357,250	179,967	172,900	4,857	..	3,765,339
1910 .	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920 .	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	1,972	5,411,297
1930 .	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940(*c*) .	2,790,948	1,914,918	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1950 .	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1960 .	3,877,261	2,888,290	1,502,286	957,022	731,033	355,969	24,787	55,272	10,391,920
1965 .	4,211,049	3,195,860	1,659,423	1,082,958	838,248	369,608	55,464	92,798	11,505,408
1966 .	4,273,307	3,249,870	1,687,882	1,104,590	862,685	373,905	58,099	100,049	11,710,387
1967 .	4,346,815	3,303,257	1,718,266	1,118,477	892,763	379,628	61,507	108,176	11,928,889
1968 .	4,428,760	3,355,761	1,751,828	1,136,387	930,758	386,031	66.555	117,221	12,173,301
1969 .	4,529,918	3,420,142	1,785,394	1,155,303	966,740	391,151	69,657	127,722	12,446,027

(*a*) Excludes full-blood Aborigines before 1961. The results of the census of 30 June 1966 have been taken into account in the preparation of estimates for dates after the census of 30 June 1961. *See* text page 121. (*b*) Part of New South Wales before 1911. (*c*) Includes all defence personnel enlisted in Australia irrespective of movement after enlistment.

The estimated population at 31 December each year from 1788 to 1946 is shown in *Demography*, Bulletin No. 67, 1949, and for the period 1901 to 1966 in *Demography*, Bulletin No. 84. A graph illustrating the growth of the population of Australia and of each State and Territory appears on plate 16, page 122.

Proportions of area and of population, density and masculinity

In the following table the proportions of the total area and of the total population represented by each State and Territory are given, together with the density and the masculinity of the population. Additional information about density and masculinity of population appears later in this chapter.

PROPORTIONS OF AREA AND OF POPULATION: DENSITY AND MASCULINITY OF POPULATION: STATES AND TERRITORIES, 31 DECEMBER 1969

State or Territory	*Proportion of total area per cent*	*Proportion of population, 31 Dec. 1969 (per cent)* *Males*	*Females*	*Persons*	*Density(a)*	*Masculinity(b)*
New South Wales	10.43	36.28	36.51	36.40	14.64	100.76
Victoria	2.96	27.38	27.58	27.48	38.92	100.71
Queensland	22.47	14.42	14.26	14.34	2.68	102.57
South Australia	12.81	9.27	9.30	9.28	3.04	101.06
Western Australia	32.88	7.85	7.69	7.77	0.99	103.52
Tasmania	0.89	3.15	3.14	3.14	14.83	101.77
Northern Territory	17.53	0.60	0.52	0.56	0.13	117.59
Australian Capital Territory	0.03	1.05	1.00	1.03	136.02	106.33
Australia	**100.00**	**100.00**	**100.00**	**100.00**	**4.19**	**101.42**

(*a*) Number of persons per square mile. (*b*) Number of males per 100 females.

Delimitation of urban centres.

The principles and criteria used for the delimitation of *urban* centres in Australia at the 1966 Census were as follows.

A boundary was defined for all settlements with a population of 1,000 or more and these were named '*urban centres*' except for the State capitals and Canberra which were named METROPOLITAN AREAS. This boundary is one which, from census to census as urbanisation proceeds, will be moved outwards to encompass any peripheral urban development.

For urban centres with a population of 30,000 and over, and for a few smaller centres, the following criteria were adopted in delimiting urban centres.

(*a*) The metropolitan area or urban centre was delimited by including as urban all contiguous census collector's districts with a population density of 500 or more persons per square mile at the date of the 1966 Census.

(*b*) Certain collector's districts, although not reaching the required population density were also included by virtue of—
  (i) land use (e.g. factory areas),
  (ii) being surrounded by urban collector's districts,
  (iii) forming a '*bridge*' between the two urban centres less than two miles apart so that they could be regarded as one single urban centre.

For urban centres of less than 30,000 population, local government area boundaries were adopted, unless they contained a large rural component or urban development was known to extend beyond the local government boundary. In these cases they were delimited by inspection of aerial photographs, by field inspection or by consideration of any other information available and the boundaries were set as closely as possible to the periphery of the built-up area without regard to local government boundaries.

In areas with large numbers of holiday homes, many of which are unoccupied at the mid-winter census date, dwelling rather than population criteria were used. These criteria were 250 dwellings (in lieu of the 1,000 population mentioned above) and 125 dwellings per square mile (in lieu of the 500 persons per square mile mentioned above).

Because the new criteria for the delimitation of urban boundaries were adopted only shortly prior to the 1966 Census a few collector's districts containing urban growth were not split into their rural and (potentially) urban components, with the result that significant urban population remained included in large, predominantly rural, collector's districts, which did not meet the density criterion. Such cases occurred mainly around the Sydney Metropolitan Area and Urban Toowoomba. The effect on the Sydney Metropolitan Area is small, probably not more that 5,000 urban population having been omitted. In Toowoomba the effect is proportionately much greater, the urban population probably being understated by up to 3,000 persons.

Delimitation of capital city statistical divisions and statistical districts

Around each metropolitan area and urban centre with a population of at least 75,000 and a regional population of at least 100,000 a further boundary was defined, designed to circumscribe an area which would contain the urban development of that centre for at least twenty years and which would generally be socially and economically oriented to the centre. These areas were designated STATISTICAL DIVISIONS (for State capital cities) or STATISTICAL DISTRICTS (for Canberra, Newcastle, Wollongong and Geelong). The boundaries of these areas, unlike urban boundaries, were designed to remain fixed for a number of censuses.

URBAN AND RURAL POPULATION(*a*): STATES AND TERRITORIES, CENSUS, 30 JUNE 1966

Division	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
PERSONS									
Urban—									
Metropolitan .	2,446,345	2,110,168	718,822	727,916	499,969	119,469	..	92,308	6,714,997
Other . .	1,211,472	643,598	558,115	173,796	140,267	141,512	28,753	..	2,897,513
Rural . . .	566,946	462,772	384,689	188,590	193,399	109,779	8,385	3,705	1,918,265
Migratory . .	9,059	2,988	2,059	1,573	3,038	675	295	..	19,687
Total . .	**4,233,822**	**3,219,526**	**1,663,685**	**1,091,875**	**836,673**	**371,435**	**37,433**	**96,013**	**11,550,462**
PERCENTAGES									
Urban—									
Metropolitan .	57.78	65.54	43.21	66.67	59.76	32.16	..	96.14	58.14
Other . .	28.61	19.99	33.55	15.92	16.76	38.10	76.81	..	25.09
Rural . . .	13.39	14.37	23.12	17.27	23.12	29.56	22.40	3.86	16.61
Migratory . .	0.21	0.09	0.12	0.14	0.36	0.18	0.79	..	0.17
Total . .	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

(*a*) Excludes full-blood Aborigines. *See* explanation of urban, rural, etc. preceding this table.

Classification of urban centres by size

The following table classifies the urban centres in Australia into grades of size of population at the Censuses of 30 June 1961 and 1966. Corresponding details for each State and Territory at the 1966 Census was included in Year Book No. 54, page 127.

A table showing the aggregate urban population at the 1961 Census of all cities and towns outside the metropolitan area of each State with 2,000 or more and 3,000 or more urban inhabitants was included in Year Book No. 51, page 267. A table showing similar data for the 1954 Census was included in Year Book No. 47, page 295 and one for the 1947 Census in Year Book No. 40, page 334. Comparisons between these various tables can be made only if allowance is made for changes in the status and structure of local government areas and for changes in the manner of determining urban population at each census.

URBAN CENTRES: NUMBER AND POPULATION(*a*), BY SIZE, AUSTRALIA CENSUSES, 1961 AND 1966

	Census, 30 June 1961			*Census, 30 June 1966*		
Population size	*No. of urban centres*	*Population*	*Percentage of Australian population*	*No. of urban centres*	*Population*	*Percentage of Australian population*
500,000 and over .	4	5,223,639	49.71	4	6,003,251	51.97
100,000–499,999 . .	4	882,140	8.39	5	1,120,586	9.70
75,000– 99,999 . .	1	87,922	0.84	1	92,308	0.80
50,000– 74,999 . .	3	165,792	1.58	5	278,836	2.41
25,000– 49,999 . .	12	374,214	3.56	7	230,177	1.99
20,000– 24,999 . .	7	151,590	1.44	9	198,562	1.72
15,000– 19,999 . .	11	187,926	1.79	16	269,979	2.34
10,000– 14,999 . .	21	263,113	2.50	20	240,091	2.08
5,000– 9,999 . .	66	458,491	4.36	61	442,750	3.83
2,500– 4,999 . .	97	324,315	3.09	103	354,795	3.07
2,000– 2,499 . .	51	113,734	1.08	49	108,519	0.94
1,000– 1,999 . .	172	247,999	2.36	178	252,825	2.19
Less than 1,000(*b*) .	30	20,158	0.19	28	19,831	0.17
500,000 and over .	4	5,223,639	49.71	4	6,003,251	51.97
100,000 ,, ,, . .	8	6,105,779	58.10	9	7,123,837	61.68
75,000 ,, ,, . .	9	6,193,701	58.94	10	7,216,145	62.47
50,000 ,, ,, . .	12	6,359,493	60.52	15	7,494,981	64.89
25,000 ,, ,, . .	24	6,733,707	64.08	22	7,725,158	66.88
20,000 ,, ,, . .	31	6,885,297	65.52	31	7,923,720	68.60
15,000 ,, ,, . .	42	7,073,223	67.31	47	8,193,699	70.94
10,000 ,, ,, . .	63	7,336,336	69.82	67	8,433,790	73.02
5,000 ,, ,, . .	129	7,794,827	74.18	128	8,876,540	76.85
2,500 ,, ,, . .	226	8,119,142	77.26	231	9,231,335	79.92
2,000 ,, ,, . .	277	8,232,876	78.35	280	9,339,854	80.86
1,000 ,, ,, . .	449	8,480,875	80.71	458	9,592,679	83.05
Total urban population	**479**	**8,501,033**	**80.90**	**486**	**9,612,510**	**83.22**

(*a*) Excludes full-blood Aborigines. (*b*) Urban centres so classified on grounds other than population and density.

Urban centres, cities and towns, Australia

The following table shows the population of urban centres, cities and towns with a population of 10,000 or more (except Alice Springs, Northern Territory) in each State and Territory of Australia at 30 June 1966 (census) and 30 June 1969.

Unless otherwise indicated as 'urban centre', 'statistical division' *or* 'statistical district', *the population figures shown in the table relate to areas delimited for local government or other administrative purposes.* The figures shown for the several urban centres (or metropolitan areas) and statistical divisions (or districts) are in accordance with the concepts adopted at the 1966 census for the delimitation of metropolitan and other urban areas for statistical purposes. These concepts are described on page 127. Statistical division and statistical district boundaries are expected to remain unchanged for a substantial number of years, whereas the boundaries of metropolitan areas and urban centres will, by definition, change at intervals. The present boundaries of these urban centres (or metropolitan areas) are those established from 1966 census data; it has not been possible to make post-censal estimates for all these urban centres.

POPULATION OF URBAN CENTRES, CITIES AND TOWNS: STATES AND TERRITORIES 30 JUNE 1966 (CENSUS) AND 1969

City or town	*Population at 30 June—*	
	1966(a)	*1969*
NEW SOUTH WALES—		
Sydney—		
Sydney City(*b*)	159,531	68,600
Metropolitan Area	2,447,219	n.a.
Statistical Division(*c*)	2,542,207	2,712,610
Newcastle—		
Newcastle City	143,070	144,860
Urban Centre	234,005	n.a.
Statistical District(*d*)	327,578	342,950
Wollongong—		
Greater Wollongong	149,523	160,630
Urban Centre	162,171	n.a.
Statistical District(*e*)	177,456	196,330
Greater Cessnock	34,521	34,400
Blue Mountains	30,733	33,100
Broken Hill	30,043	30,420
Wagga Wagga	25,820	27,580
Albury	25,112	26,700
Tamworth	21,683	23,080
Orange	20,996	22,500
Goulburn	20,871	21,340
Lismore	19,757	20,140
Bathurst	17,230	17,430
Woy Woy–Umina (urban centre)	16,289	n.a.
Dubbo	15,589	16,270
Armidale	15,010	16,260
Grafton	15,987	16,230
Queanbeyan	12,515	14,260
Lithgow	12,811	12,710
Gosford (urban centre)	11,310	n.a.
Taree	10,563	11,050
VICTORIA—		
Melbourne—		
Melbourne City	76,006	76,500
Metropolitan Area	2,110,336	n.a.
Statistical Division	2,230,793	2,372,700
Geelong—		
Geelong City	18,129	18,220
Urban Centre	105,060	n.a.
Statistical District	111,365	117,340
VICTORIA—*continued*		
Ballarat—		
Ballaarat City	41,661	41,890
Urban Centre	56,312	n.a.
Bendigo—		
Bendigo City	30,806	31,520
Urban Centre	42,209	n.a.
Moe—		
Moe City	16,555	16,760
Moe–Yallourn (urban centre)	23,222	n.a.
Shepparton	17,488	18,480
Warrnambool	17,500	18,170
Morwell (urban centre)	16,647	n.a.
Wangaratta	15,181	15,790
Traralgon	14,080	14,510
Mildura	12,934	13,200
Horsham	10,562	11,020
Hamilton	10,062	10,180
QUEENSLAND—		
Brisbane—		
Brisbane City	656,612	693,050
Metropolitan Area	719,278	n.a.
Statistical Division	778,193	833,400
Townsville	59,135	66,400
Gold Coast	49,495	60,500
Toowoomba	55,813	59,200
Rockhampton	46,246	47,600
Cairns	26,891	27,850
Bundaberg	25,472	27,100
Mackay—		
Mackay City	18,651	19,750
Urban Centre	24,603	n.a.
Maryborough	19,662	20,000
Mount Isa	17,684	19,800
Gladstone	12,435	12,500
Gympie	11,286	11,400
Warwick	10,075	10,200

POPULATION OF PRINCIPAL CITIES AND TOWNS: STATES AND TERRITORIES 30 JUNE 1966 (CENSUS) AND 1969—*continued*

City or town	*Population at 30 June—* *1966(a)*	*Population at 30 June—* *1969*
SOUTH AUSTRALIA—		
Adelaide—		
Adelaide City	18,619	16,800
Metropolitan Area	728,279	751,600
Statistical Division	771,561	808,600
Whyalla	22,131	28,900
Mount Gambier	17,261	17,550
Port Pirie	13,965	13,850
Port Augusta	10,132	11,050
WESTERN AUSTRALIA—		
Perth—		
Perth City	96,322	97,000
Metropolitan Area	500,246	n.a.
Statistical Division	559,298	635,500
Kalgoorlie—		
Kalgoorlie Town	9,203	9,700
Kalgoorlie–Boulder (urban centre)	19,980	n.a.
Bunbury	15,467	16,900
Geraldton	12,196	14,100
Albany	11,440	12,300
TASMANIA—		
Hobart—		
Hobart City	53,257	52,810
Metropolitan Area	119,469	124,880
Statistical Division	141,311	147,830
Launceston—		
Launceston City	37,217	36,700
Urban Centre	60,456	62,390
Burnie–Somerset (urban centre)	18,042	19,550
Devonport (urban centre)	14,874	16,600
NORTHERN TERRITORY—		
Darwin—		
Darwin City	18,695	25,240
Urban Centre	21,205	n.a.
Alice Springs	6,390	8,785
AUSTRALIAN CAPITAL TERRITORY—		
Canberra—		
Canberra City District	93,314	(*f*)119,235
Metropolitan Area	92,311	n.a.
Statistical District(*g*)	107,138	134,630

(*a*) Population at Census date. The difference between the statistics published here and those in census publications, which exclude full-blood Aborigines, cannot be taken as reliable statistics of Aboriginal population. (*b*) From 1 August 1968 parts of the City of Sydney were transferred to adjoining municipalities. (*c*) Includes part (16,200 at 1969) of Blue Mountains. (*d*) Includes Maitland (29,650 at 1969) and most (33,740 at 1969) of Greater Cessnock. (*e*) Includes Shellharbour (29,300 at 1969). (*f*) Result of population count of Canberra. (*g*) Includes Queanbeyan (14,260 at 1969) in New South Wales.

Principal cities of the world.

The following table shows the population of the world's largest cities at the latest available date. Since the way in which cities are delimited differs from country to country, the table shows data for the urban agglomeration, where available, as well as data for the so-called city proper. The urban agglomeration is defined in the United Nations *Demographic Yearbook* 1968 (page 20), from which most of the figures in the table have been taken, as including the suburban fringe or thickly settled territory lying outside of, but adjacent to, the city boundaries. (*See also* the Technical Notes on Statistical Tables and footnotes to the table in the *Demographic Yearbook*).

POPULATION OF THE WORLD'S LARGEST CITIES

			Population ('000)					*Population ('000)*	
City	*Country*	*Year*	*City proper*	*Urban agglomeration*	*City*	*Country*	*Year*	*City proper*	*Urban agglomeration*
New York	U.S.A.	1967	(*a*)8,023	(*a*)(*b*)11,556	Washington	U.S.A.	1967	(*a*)808	(*a*)(*b*)2,704
Tokyo	Japan	1967	8,960	11,172	Rome	Italy	1967	..	2,602
Paris	France	1968	2,591	8,197	Montreal	Canada	1967	1,222	2,489
Buenos Aires	Argentina	1968	3,447	7,984	Manchester	England	1967	617	2,452
London	England	1969	..	7,703	Santiago	Chile	1968	839	2,448
Shanghai	China	1957	6,900	..	Birmingham	England	1967	1,102	2,446
Los Angeles	U.S.A.	1967	2,479	(*a*)(*b*)6,857	Shenyang(*e*)	China	1957	2,411	..
Chicago	U.S.A.	1967	3,550	(*a*)(*b*)6,771	Pittsburgh	U.S.A.	1967	604	(*a*)2,386
Moscow	U.S.S.R.	1968	6,466	6,563	Melbourne	Australia	1969	..	(*c*)2,373
Bombay	India	1968	5,368	..	St Louis	U.S.A	1967	(*a*)690	(*a*)(*b*)2,311
Calcutta	India	1968	3,109	5,075	Toronto	Canada	1967	665	2,233
Philadelphia	U.S.A.	1967	(*a*)2,042	(*a*)(*b*)4,774	Bogota	Columbia	1968	2,038	2,206
Cairo	U.A.R.	1966	4,220	..	West Berlin(*f*)	Germany	1967	2,173	..
Detroit	U.S.A.	1967	1,670	(*a*)4,114	Wuhan	China	1957	2,146	..
Sao Paulo	Brazil	1966	4,098	..	Chunking	China	1957	2,121	..
Peking	China	1957	4,010	..	Lima	Peru	1968	..	2,073
Rio de Janeiro	Brazil	1966	3,909	..	Cleveland	U.S.A.	1966	(*d*)811	(*a*)2,050
Seoul	Korea	1966	3,795	..	Istanbul	Turkey	1965	1,743	2,043
Leningrad	U.S.S.R.	1968	3,338	3,752	Madras	India	1968	2,010	..
Mexico City	Mexico	1968	3,418	..	Baltimore	U.S.A.	1967	(*a*)924	(*a*)1,990
Boston	U.S.A.	1967	697	(*a*)(*b*)3,250	Nagoya	Japan	1967	..	1,981
Tientsin	China	1957	3,220	..	Budapest	Hungary	1967	1,980	..
Osaka	Japan	1967	..	3,106	Singapore	Singapore	1967	1,956	..
San Francisco	U.S.A.	1967	(*a*)714	(*a*)(*b*)3,009	Yokohama	Japan	1967	..	1,945
Djakarta	Indonesia	1961	2,907	..	Newark	U.S.A.	1967	405	(*a*)(*b*)1,889
Karachi	Pakistan	1968	..	2,886	Caracas	Venezuela	1967	787	1,859
Delhi	India	1967	2,511	2,874	Athens	Greece	1961	628	1,853
Madrid	Spain	1967	..	2,765	Hamburg	Germany	1967	1,840	..
Teheran	Iran	1966	2,720	..	Houston	U.S.A.	1967	938	(*a*)1,788
Sydney	Australia	1969	..	(*c*)2,713	Barcelona	Spain	1967	..	1,761

(*a*) Provisional. (*b*) 'Standard metropolitan statistical area'; *see U.N. Demographic Year Book* for exact areas included. (*c*) Statistical Division. (*d*) 1965. (*e*) Formerly Mukden. (*f*) East Berlin, 1967, population of city proper, 1,080,754.

Mean population

Mean populations are calculated for twelve-month periods to provide an average basis for calculations requiring allowance for the continuous change in population figures during such periods.

The following tables show the mean populations for the calendar and financial years 1960 to 1969.

MEAN POPULATION(*a*): CALENDAR YEARS, STATES AND TERRITORIES, 1960 TO 1969

Year ended 31 Dec.—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1960	3,834,085	2,857,032	1,491,114	944,861	722,900	346,913	25,107	52,562	10,274,574
1961	3,913,967	2,926,075	1,516,334	970,118	737,596	353,628	26,272	58,852	10,502,842
1962	3,986,796	2,983,715	1,551,249	987,867	766,205	355,682	46,034	66,180	10,743,728
1963	4,050,230	3,041,442	1,578,309	1,010,500	788,457	360,590	48,330	73,300	10,951,158
1964	4,109,559	3,105,685	1,610,809	1,037,495	808,300	364,554	51,528	80,499	11,168,429
1965	4,176,686	3,165,594	1,644,028	1,066,884	826,481	367,970	54,142	88,417	11,390,202
1966	4,240,306	3,221,409	1,674,357	1,094,567	848,837	371,632	56,672	96,502	11,604,282
1967	4,308,944	3,277,131	1,702,689	1,111,675	876,997	376,588	59,664	103,725	11,817,413
1968	4,386,377	3,327,724	1,733,898	1,126,159	910,123	382,298	64,280	112,768	12,043,627
1969	4,479,435	3,387,404	1,769,121	1,145,111	947,203	388,646	68,216	122,244	12,307,380

For footnotes *see* next page.

MEAN POPULATION(*a*): FINANCIAL YEARS, STATES AND TERRITORIES, 1959-60 TO 1968-69

Year ended 30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1960 . .	3,796,452	2,819,650	1,478,129	933,619	717,316	344,111	24,573	50,013	10,163,863
1961 . .	3,875,921	2,893,417	1,503,703	957,136	729,770	350,077	25,673	55,232	10,390,929
1962 . .	3,952,259	2,956,769	1,539,634	979,241	755,770	353,175	45,282	62,674	10,644,804
1963 . .	4,020,774	3,011,833	1,563,347	998,510	777,413	358,180	46,960	69,557	10,846,574
1964 . .	4,078,917	3,073,384	1,594,993	1,023,448	798,824	362,758	50,010	76,966	11,059,300
1965 . .	4,142,568	3,136,319	1,626,935	1,052,098	817,157	366,366	52,793	84,400	11,278,636
1966 . .	4,209,710	3,194,035	1,660,076	1,081,864	837,290	369,600	55,418	92,624	11,500,617
1967 . .	4,272,703	3,249,913	1,688,078	1,103,973	862,130	373,916	58,081	99,925	11,708,719
1968 . .	4,346,723	3,302,019	1,717,839	1,118,226	892,537	379,367	61,743	108,175	11,926,629
1969 . .	4,430,183	3,355,804	1,751,476	1,135,635	928,943	385,685	66,552	117,412	12,171,690

(*a*) Excludes full blood Aborigines for years before 1962 (and 1961–62). Population estimates after the 1961 census are based on a method which omits holiday, business or other short term movements between States and Territories. As a consequence, marked quarterly seasonal movements in some States due to interstate holiday movements are reflected in the mean population figures for the States before 1962 (and 1961–62), but not in those for 1962 (1961–62) and subsequent years.

The mean population for any year has been calculated by the formula:

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a*, *b*, *c*, *d*, and *e*, respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g. in the case of a calendar year, 31 December of the preceding year, and 31 March, 30 June, 30 September and 31 December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values *a*, *b*, *c*, *d*, and *e*.

Elements of increase

The two factors which contribute to the growth of a population are 'natural increase', i.e. the excess of births over deaths, and 'net migration', i.e. the excess of arrivals over departures. The 'total increase' of the population is obtained by combining natural increase with the increase by net migration. However, comparison of the total increase so obtained with that derived by subtracting the population recorded at one census from that recorded at the next census reveals differences which can be attributed partly to differences in the coverage of the census enumerations, and partly to deficiencies in the records of the elements of increase.

Elements of increase, 1941 to 1969

In the following table particulars are given of the elements of increase for each five-year period from 1941 to 1965 and for each of the years 1965 to 1969.

POPULATION(*a*) ELEMENTS OF INCREASE, BY SEX
AUSTRALIA, 1941 TO 1969

Period	*Natural increase (b)(c)*	*Net overseas migration gain(d)*	*Increase in total population(a)(e)*		
			Males	*Females*	*Persons*
1941–45 . .	337,678	7,809	151,358	201,253	352,611
1946–50 . .	529,447	353,084	469,579	407,705	877,284
1951–55 . .	599,702	413,824	522,372	481,972	1,004,344
1956–60 . .	679,857	405,022	539,256	540,839	1,080,095
1961–65 . .	687,432	399,888	(*a*)519,623	(*a*)553,784	(*a*)1,073,407
1965 . . .	123,139	104,856	110,667	114,312	224,979
1966 . . .	118,697	86,926	101,085	103,894	204,979
1967 . . .	126,593	91,909	109,790	108,712	218,502
1968 . . .	131,359	113 053	124,050	120,362	244,412
1969 . . .	143,680	129,046	138,303	134,423	272,726

(*a*) Excludes full blood Aborigines before 30 June 1961. (*b*) Excess of births registered over deaths registered. From September 1939 to June 1947, deaths of defence personnel whether overseas or in Australia are included. (*c*) Excludes full blood Aboriginals before 1 January 1967. (*d*) Excess of recorded overseas arrivals over recorded overseas departures. Excludes troop movements for the period September 1939 to June 1947. (*e*) Increase in total population as recorded at censuses or as estimated for intercensal periods. It includes, in addition to the recorded figures for natural increase and net overseas migration gain, adjustments to make the series of increases agree with total intercensal increases revealed by successive censuses (up to the Census of 30 June 1966), and adjustments for exclusion of Aboriginal births and deaths between 30 June 1961 and January 1967.

Rate of population growth

In the following two tables natural increase refers to the excess of births over deaths (including deaths of Australian defence personnel), net migration refers to excess of overseas arrivals over departures excluding overseas movement of defence personnel for the period of September 1939 to June 1947, and total increase is the sum of natural increase and net migration together with adjustments to make the series of increases agree with total intercensal increases revealed by successive census results (up to the census of 30 June 1966).

POPULATION(*a*): ANNUAL RATE OF GROWTH, AUSTRALIA
1941 TO 1969
(Per cent)

Period	*Natural increase(b)*	*Net migration*	*Total increase(c)*
Average annual rate(*d*)—			
1941–45	0.94	0.02	0.98
1946–50	1.36	0.91	2.26
1951–55	1.38	0.95	2.31
1956–60	1.40	0.83	2.22
1961–65	1.27	0.74	(*c*)1.98
Annual rate(*e*)—			
1965	1.09	0.93	1.99
1966	1.03	0.75	1.78
1967	(*b*)1.08	0.79	1.87
1968	1.10	0.95	2.05
1969	1.18	1.06	2.24

(*a*) Population on which rates calculated excludes full blood Aborigines before 30 June 1961. (*b*) Excludes particulars of full-blood Aborigines before 1 January 1967. (*c*) Excludes full-blood Aborigines before 30 June 1961. (*d*) The average annual rate of total increase is computed by the formula:

$$P_t = P_0 (1 + r)^t$$

where P_0 and P_t are the populations at the beginning and end respectively of a t-year period and r is the average annual rate of growth. The average annual rate of natural increase and net migration is computed by dividing the average annual rate of total increase between its components in proportion to the fraction of total increase due to each component during the period. Differences between the sum of the rates of natural increase and of net migration and the rate of total increase are due to the intercensal adjustment. (*e*) Annual rates of natural increase, net migration and total increase, for single years, represent the increase during the year expressed as a proportion (per cent) of the population at the beginning of the year.

The average annual rate of population growth during the present century has been 1.74 per cent, but the results from year to year have deviated widely from this figure. In the following table the period 1 January 1901 to 31 December 1968 has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population.

POPULATION(*a*): PERIODIC RATES OF GROWTH, AUSTRALIA
1901 TO 1969

Period	*Interval (years)*	*Total increase ('000)*	*Average annual numerical increase ('000)*	*Average annual rate of population growth (per cent)*		
				Natural increase (b)	*Net migration*	*Total*
1901 to 1913	13	1,128	87	1.55	0.49	2.04
1914 to 1923	10	862	86	1.49	0.15	1.64
1924 to 1929	6	680	113	1.26	0.62	1.88
1930 to 1939	10	569	57	0.82	0.02	0.85
1940 to 1946	7	513	73	0.98	0.01	1.01
1947 to 1952	6	1,222	204	1.37	1.19	2.54
1953 to 1961	9	1,862	207	1.40	0.79	2.17
1962 to 1969	8	1,803	225	1.16	0.83	1.99

(*a*) Excludes full-blood Aborigines before 1962. (*b*) Excludes full-blood Aborigines before 1 January 1967.

Rates of population growth from 1901 are shown for each State and Territory of Australia in the annual bulletin, *Demography*. Estimated rates of growth of the population of Australia in comparison with those for other countries of the world for the years 1963–1968 are shown in the table on pages 157–8.

Sex distribution

The number of males to each hundred females has been adopted as a measure of the 'masculinity' of the population. With the exception of some dislocation arising from the two World Wars, there was a continuous diminution of the masculinity of the population until 1945. This resulted from the increasing proportion of the population in the higher age groups, in which females preponderate owing to their greater longevity, and the general long-term fall in the birth rate. At the 1947 census the numbers of the sexes were practically equal, but during the following decade there was an increase in masculinity owing to the greater numbers of males as compared with females in net overseas migration, and the recovery of the birth rate in the post-war period from the low levels of the 1930s. In more recent years, however, the trend has declined again.

POPULATION(*a*): MASCULINITY, STATES AND TERRITORIES, DECEMBER 1900 TO 1969

(Number of males per 100 females)

31 Dec.—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1900 . .	111.14	101.23	125.33	101.95	157.54	107.97	753.60	(*b*)	110.55
1910 . .	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(*b*)	107.87
1920 . .	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1930 . .	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1940 . .	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1950 . .	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1960 . .	101.38	101.35	104.16	102.24	103.99	102.88	147.82	111.51	102.22
1965 . .	100.68	100.52	102.99	101.03	103.99	101.83	123.36	108.70	101.43
1966 . .	100.64	100.46	102.83	100.91	103.94	101.71	121.93	107.56	101.36
1967 . .	100.65	100.50	102.75	100.93	103.82	101.73	120.58	106.80	101.35
1968 . .	100.71	100.60	102.63	100.99	103.68	101.72	118.62	107.16	101.39
1969 . .	100.76	100.71	102.57	101.06	103.52	101.77	117.59	106.33	101.42

(*a*) Excludes full blood Aborigines before 1961. (*b*) Part of New South Wales prior to 1911.

The masculinity of the population in certain countries of the world is shown in the table on pages 157–8.

Age distribution

The next table shows the changes which have taken place in the age distribution of the population of Australia since 1871.

POPULATION(*a*): PROPORTIONAL AGE DISTRIBUTION, BY SEX, AUSTRALIA 1871 TO 1966

(Per cent)

	Males				*Females*				*Persons*			
Census	*Under 15 years*	*15 years and under 65*	*65 years and over*	*Total*	*Under 15 years*	*15 years and under 65*	*65 years and over*	*Total*	*Under 15 years*	*15 years and under 65*	*65 years and over*	*Total*
1871 . .	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881 . .	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891 . .	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901 . .	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911 . .	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921 . .	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933 . .	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947 . .	25.49	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.89	8.05	100
1954 . .	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.18	8.30	100
1961 . .	30.61	62.16	7.23	100	29.85	60.33	9.82	100	30.23	61.26	8.51	100
1966 . .	29.88	63.03	7.09	100	28.86	61.13	10.01	100	29.37	62.09	8.54	100

(*a*) Excludes full-blood Aborigines.

Estimates of the age distribution of population, based on the census distribution of ages and records of births, ages at death, and ages of migrants, are made for intercensal years. The following table shows the estimated age distributions of the Australian population at 30 June 1968 and 1969.

POPULATION: ESTIMATED AGE DISTRIBUTION(*a*), AUSTRALIA

Age last birthday (years)	*30 June 1968*			*30 June 1969*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
0– 4	588,821	558,573	1,147,394	596,741	567,675	1,164,416
5– 9	623,090	593,752	1,216,842	632,087	600,765	1,232,852
10–14	578,823	551,152	1,129,975	594,026	565,908	1,159,934
15–19	547,587	523,240	1,070,827	559,174	534,550	1,093,724
20–24	510,644	484,179	994,823	534,263	504,181	1,038,444
25–29	412,292	383,326	795,618	436,119	404,098	840,217
30–34	373,734	350,607	724,341	387,468	364,169	751,637
35–39	384,548	355,719	740,267	380,187	352,115	732,302
40–44	404,299	378,706	783,005	408,372	379,485	787,857
45–49	370,208	359,076	729,284	384,421	370,618	755,039
50–54	321,986	322,516	644,502	318,431	319,492	637,923
55–59	290,720	285,073	575,793	298,048	296,631	594,679
60–64	229,470	232,150	461,620	236,754	240,515	477,269
65–69	167,635	197,040	364,675	171,568	198,194	369,762
70–74	117,495	165,080	282,575	119,316	166,254	285,570
75–79	79,640	122,548	202,188	77,672	124,582	202,254
80–84	40,488	70,516	111,004	41,997	73,705	115,702
85 and over . . .	18,052	38,030	56,082	17,993	38,705	56,698
Total . . .	**6,059,532**	**5,971,283**	**12,030,815**	**6,194,637**	**6,101,642**	**12,296,279**

(*a*) Based on the age distribution of all persons enumerated at the Census of 30 June 1966 adjusted for mis-statement of age and on subsequent births, recorded ages at death and recorded ages of migrants.

General characteristics of the population, censuses, 1961 and 1966

Particulars of the characteristics of the population of Australia at the 1966 Census compared with the 1961 Census are shown in this section. Corresponding information for the individual States and Territories is shown in Year Book No. 54. Information concerning the industry, occupational status, and occupations of the population as recorded at the 1966 Census is given in the chapter Employment and Unemployment, and on dwellings in the chapter Housing and Building.

The characteristics dealt with in the following pages are: age; marital status; country of birth; period of residence in Australia of overseas born; nationality; religion. Further details are available in a series of mimeographed bulletins which are listed in the chapter Miscellaneous. All tables exclude particulars of full-blood Aborigines.

POPULATION: AGE (GROUPED AGES)(*a*), BY SEX, AUSTRALIA, CENSUSES, 1961 AND 1966

Age last birthday (years)	*Census, 30 June 1961*			*Census, 30 June 1966*			*Increase 1961–1966*
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	
0– 4	567,742	541,751	1,109,493	585,949	557,195	1,143,144	33,651
5– 9	536,046	511,475	1,047,521	595,538	567,358	1,162,896	115,375
10–14	522,407	497,577	1,019,984	556,251	530,197	1,086,448	66,464
15–19	414,788	394,145	808,933	536,848	511,378	1,048,226	239,293
20–24	361,531	335,907	697,438	436,709	417,232	853,941	156,503
25–29	342,443	313,628	656,071	384,336	361,729	746,065	89,994
30–34	386,175	351,793	737,968	355,654	331,700	687,354	−50,614
35–39	395,247	372,669	767,916	397,463	367,099	764,562	−3,354
40–44	343,973	334,554	678,527	396,536	377,215	773,751	95,224
45–49	335,890	321,941	657,831	343,033	334,639	677,672	19,841
50–54	293,004	275,023	568,027	323,810	317,824	641,634	73,607
55–59	238,051	225,330	463,381	276,100	266,916	543,016	79,635
60–64	190,805	210,048	400,853	215,590	219,759	435,349	34,496
65–69	149,130	184,654	333,784	161,376	195,020	356,396	22,612
70–74	116,939	148,048	264,987	115,084	160,887	275,971	10,984
75–79	69,223	95,724	164,947	79,634	116,753	196,387	31,440
80–84	33,069	52,627	85,696	38,568	64,296	102,864	17,168
85 and over	15,789	29,040	44,829	17,880	36,906	54,786	9,957
Total	**5,312,252**	**5,195,934**	**10,508,186**	**5,816,359**	**5,734,103**	**11,550,462**	**1,042,276**

(*a*) Recorded ages adjusted by the distribution of ages 'not stated'.
Minus sign (−) denotes decrease.

POPULATION: MARITAL STATUS, BY SEX, AUSTRALIA, CENSUSES, 1961 AND 1966

Marital status	*Census, 30 June 1961*			*Census, 30 June 1966*			*Increase 1961–1966*
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	
Never married—							
Under 15 years of age	1,626,195	1,550,803	3,176,998	1,737,738	1,654,750	3,392,488	215,490
15 years of age and over	1,098,450	770,048	1,868,498	1,246,214	899.354	2,145,568	277,070
Total never married	*2,724,645*	*2,320,851*	*5,045,496*	*2,983,952*	*2,554,104*	*5,538,056*	*492,560*
Married	2,364,710	2,344,754	4,709,464	2,592,236	2,578,488	5,170,724	461,260
Married but permanently separated(*a*)	68,172	78,367	146,539	75,149	87,218	162,367	15,828
Divorced	38,640	43,339	81,979	42,885	51,143	94,028	12,049
Widowed	116,085	408,623	524,708	122,137	463,150	585,287	60,579
Grand total	**5,312,252**	**5,195,934**	**10,508,186**	**5,816,359**	**5,734,103**	**11,550,462**	**1,042,276**

(*a*) Legally or otherwise.

POPULATION: COUNTRY OF BIRTH, BY SEX, AUSTRALIA, CENSUSES, 1961 AND 1966

Country of birth	*Census, 30 June 1961*			*Census, 30 June 1966*			*Increase 1961–1966*
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	
Australia	4,325,005	4,404,401	8,729,406	4,663,212	4,756,330	9,419,542	690,136
New Zealand	23,377	23,634	47,011	26,174	26,311	52,485	5,474
Europe—							
United Kingdom and Republic of Ireland(*a*)	400,491	354,911	755,402	474,427	434,237	908,664	153,262
Germany	57,579	51,736	109,315	55,799	52,910	108,709	−606
Greece	43,593	33,740	77,333	73,936	66,153	140,089	62,756
Italy	134,624	93,672	228,296	150,138	117,187	267,325	39,029
Malta	22,628	16,709	39,337	31,028	24,076	55,104	15,767
Netherlands	56,811	45,272	102,083	55,189	44,360	99,549	−2,534
Poland	36,395	23,654	60,049	36,496	25,145	61,641	1,592
Other	134,185	90,212	224,397	147,921	104,509	252,430	28,033
Total, Europe	886,306	709,906	1,596,212	1,024,934	868.577	1,893,511	297,299
Other countries	77,564	57,993	135,557	102,039	82,885	184,924	49,367
Total born outside Australia	*987,247*	*791,533*	*1,778,780*	*1,153,147*	*977,773*	*2,130,920*	*352,140*
Grand total	**5,312,252**	**5,195,934**	**10,508,186**	**5,816,359**	**5,734,103**	**11,550,462**	**1,042,276**

(*a*) Includes Ireland (undefined).
Minus sign (−) denotes decrease.

POPULATION: OVERSEAS BORN, BY PERIOD OF RESIDENCE IN AUSTRALIA, AND SEX CENSUSES, 1961 AND 1966

Period of residence (years)	*Census, 30 June 1961*			*Census, 30 June 1966*			*Increase 1961–1966*
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	
Under 1	72,162	51,169	123,331	88,608	73,252	161,860	38,529
1 and under 2	48,600	38,366	86,966	65,980	58,361	124,341	37,375
2 ,, ,, 3	47,126	42,901	90,027	58,366	51,963	110,329	20,302
3 ,, ,, 4	37,736	41,254	78,990	46,104	41,934	88,038	9,048
4 ,, ,, 5	42,600	41,284	83,884	35,623	37,279	72,902	−10,982
5 years and over	717,961	560,573	1,278,534	833,170	693,902	1,527,072	248,538
Not stated	21,062	15,986	37,048	25,296	21,082	46,378	9,330
Total	987,247	791,533	1,778,780	1,153,147	977,773	2,130,920	352,140

Minus sign (−) denotes decrease.

POPULATION: NATIONALITY (i.e. ALLEGIANCE), BY SEX AUSTRALIA, CENSUSES, 1961 AND 1966

Nationality	*Census, 30 June 1961*			*Census, 30 June 1966*			*Increase 1961–1966*
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	
British (*a*)—							
Born in Australia	4,325,005	4,404,401	8,729,406	4,663,212	4,756,330	9,419,542	690,136
Born outside Australia	686,611	568,692	1,255,303	871,263	748,582	1,619,845	364,542
Total British	*5,011,616*	*4,973,093*	*9,984,709*	*5,534,475*	*5,504,912*	*11,039,387*	*1,054,678*
Foreign—							
Dutch	41,216	34,601	75,817	25,941	22,014	47,955	−27,862
German	34,317	26,172	60,489	24,262	18,559	42,821	−17,668
Greek	32,763	28,238	61,001	53,344	53,333	106,677	45,676
Hungarian	8,210	5,816	14,026	3,411	2,353	5,764	−8,262
Italian	86,941	67,068	154,009	81,632	71,781	153,413	−596
Latvian, Lithuanian and Estonian	4,176	2,936	7,112	1,751	1,068	2,819	−4,293
Polish	12,939	9,474	22,413	7,784	5,998	13,782	−8,631
Yugoslav	17,745	9,637	27,382	24,024	14,229	38,253	10,871
Other (incl. Stateless)	62,329	38,899	101,228	59,735	39,856	99,591	−1,637
Total foreign	*300,636*	*222,841*	*523,477*	*281,884*	*229,191*	*511,075*	*−12,402*
Grand total	**5,312,252**	**5,195,934**	**10,508,186**	**5,816,359**	**5,734,103**	**11,550,462**	**1,042,276**

(*a*) All persons of individual citizenship status who, by virtue of the *Nationality and Citizenship Act* 1948–1966, are deemed to be British subjects. Includes naturalised British. For purposes of this table Irish nationality is included with British.

Minus sign (−) denotes decrease.

POPULATION: RELIGIOUS DENOMINATIONS, BY SEX, AUSTRALIA CENSUSES, 1961 AND 1966

Religious denomination	*Census, 30 June 1961*			*Census, 30 June 1966*			*Increase 1961–1966*
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	
Christian—							
Baptist	70,990	78,638	149,628	78,053	87,434	165,487	15,859
Brethren	7,265	8,228	15,493	7,434	8,082	15,516	23
Catholic, Roman(*a*)	602,763	536,886	1,139,649	581,934	522,035	1,103,969	−35,680
Catholic(*a*)	730,093	750,242	1,480,335	947,796	984,365	1,932,161	451,826
Churches of Christ	45,115	50,518	95,633	48,207	54,338	102,545	6,912
Church of England	1,834,732	1,834,208	3,668,940	1,929,663	1,947,810	3,877,473	208,533
Congregational	34,679	38,847	73,526	35,911	40,677	76,588	3,062
Orthodox	84,965	69,959	154,924	135,618	119,875	255,493	100,569
Lutheran	82,453	77,729	160,182	90,019	87,305	177,324	17,142
Methodist	528,003	548,392	1,076,395	548,392	575,918	1,124,310	47,915
Presbyterian	482,503	494,218	976,721	511,993	531,577	1,043,570	66,849
Salvation Army	24,379	26,735	51,114	27,078	29,423	56,501	5,387
Seventh-day Adventist	14,313	17,320	31,633	16,948	20,669	37,617	5,984
Protestant (undefined)	50,515	48,048	98,563	52,956	52,267	105,223	6,660
Other (including Christian undefined)	48,626	52,779	101,405	63,769	67,492	131,261	29,856
Total Christian	*4,641,394*	*4,632,747*	*9,274,141*	*5,075,771*	*5,129,267*	*10,205,038*	*930,897*
Non-Christian—							
Hebrew	29,571	29,758	59,329	31,301	31,970	63,271	3,942
Other	6,547	2,928	9,475	8,515	4,597	13,112	3,637
Total non-Christian	*36,118*	*32,686*	*68,804*	*39,816*	*36,567*	*76,383*	*7,579*
Indefinite	13,495	11,267	24,762	19,641	16,409	36,050	11,288
No religion	25,206	12,344	37,550	60,524	33,567	94,091	56,541
No reply	596,039	506,890	1,102,929	620,607	518,293	1,138,900	35,971
Grand total	**5,312,252**	**5,195,934**	**10,508,186**	**5,816,359**	**5,734,103**	**11,550,462**	**1,042,276**

(*a*) So described in individual census schedules.

Minus sign (−) denotes decrease.

The Aboriginal population of Australia

In Year Book No. 17, pages 951–61, a brief account was given of the Australian Aboriginal population, its origin, its numbers as estimated from time to time and the steps taken for its protection. On pages 914–16 of Year Book No. 22 particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687–96 of Year Book No. 23.

Aborigines have been enumerated in all censuses of the Commonwealth, but the degree of coverage and information obtained has varied substantially since 1911. Since the census taken in 1933 the adequacy of the particulars obtained has improved progressively as a result of an increasing number of Aborigines coming into contact with more populated areas.

At the 1966 Census extensive arrangements were made to obtain as full a coverage of Aborigines as possible and to enumerate fully those Aborigines 'out of contact'. Throughout Australia the assistance of Aboriginal welfare bodies, mission superintendents, station owners, patrol officers, and police was sought in an effort to include all Aborigines and to obtain complete information about them, e.g. in the Northern Territory information was obtained from missions and settlements concerning Aborigines normally resident at such locations but who were absent at the time of the census, and of Aborigines resident at such locations but who normally resided elsewhere. The two sets of information were then reconciled to produce what is considered to be a fairly complete and accurate coverage of Aborigines in the Territory.

Selected characteristics

The tables which follow present statistics relating to some selected characteristics derived from the 1966 Census. Details of all characteristics enumerated, together with details for States and Territories, and comparisons between the Aboriginal population and the total population, may be found in the publication *The Aboriginal Population of Australia* (reference No. 2.23).

At censuses prior to the 1966 Census, the instructions relating to race were insufficient to enable respondents to classify themselves according to degree of race mixture. For example, from 1933 to 1961 persons were asked to state:

> 'For persons of European Race, wherever born, write "European". For non-Europeans state the race to which they belong, for example, "Aboriginal", "Chinese", "Negro", "Afghan", etc. If the person is half-caste with one parent of European race, write also "H.C.", for example "H.C. Aboriginal", "H.C. Chinese", etc,.

At the 1966 Census the instructions were redesigned as follows in an endeavour to obtain precise data on race mixture and also to avoid the opprobrium attaching to the term 'half-caste':

> 'State each person's race. For persons of European race wherever born, write "European". Otherwise state whether Aboriginal, Chinese, Indian, Japanese, etc., as the case may be. If of more than one race give particulars, for example, $\frac{1}{2}$ European—$\frac{1}{2}$ Aboriginal, $\frac{3}{4}$ Aboriginal—$\frac{1}{4}$ Chinese, $\frac{1}{2}$ European—$\frac{1}{2}$ Chinese.'

Investigations made by matching the replies of individuals at the 1961 and 1966 Censuses and by comparing overall Census results with data available from the State instrumentalities responsible for Aboriginal welfare suggest that considerable doubt attaches to the validity of the replies given to the question on race at the 1966 and previous Censuses.

It has now been concluded:

(*a*) that reporting by Aborigines in the 1966 Census was insufficiently precise to differentiate persons who are 50 per cent Aboriginal from those who are more than 50 per cent Aboriginal;

(*b*) that similar dissections obtained at censuses prior to the 1966 Census were similarly imprecise; and

(*c*) that even a total of all persons who are 50 per cent or more Aboriginal may be suspect, primarily because of the inclusion of persons who are less than 50 per cent Aboriginal and described themselves simply as 'Aboriginal', but also because of persons who are 50 per cent Aboriginal stating their race as 'European'.

Nevertheless, the statistics herein, which relate to persons who have described themselves as 50 per cent or more Aboriginal or simply as 'Aboriginal', are presented subject to these limitations in the hope that comments and suggestions will lead to the compilation of more reliable data in future censuses.

The following table shows particulars of the Aboriginal population of Australia at the Censuses of 30 June, 1954, 1961, and 1966. Because of some doubt about the accuracy of separate figures for full-blood and half-blood Aborigines as shown in previous issues of the Year Book, their separate publication has been discontinued.

ABORIGINAL POPULATION(*a*): STATES AND TERRITORIES CENSUSES, 1954, 1961 AND 1966

State or Territory	*Census, 1954(a)*			*Census, 1961(a)*			*Census, 1966(b)*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
New South Wales	6,278	5,935	12,213	7,494	7,222	14,716	7,343	6,876	14,219
Victoria	691	704	1,395	899	897	1,796	856	934	1,790
Queensland	8,368	7,781	16,149	10,146	9,550	19,696	9,644	9,359	19,003
South Australia	1,675	1,537	3,212	2,607	2,277	4,884	2,914	2,591	5,505
Western Australia	6,564	6,135	12,699	8,351	7,925	16,276	9,505	8,934	18,439
Northern Territory	5,990	5,798	11,788	9,013	8,747	17,760	10,651	10,468	21,119
Australia(*c*)	**29,716**	**28,006**	**57,722**	**38,612**	**36,697**	**75,309**	**40,984**	**39,223**	**80,207**

(*a*) Prior to the 1966 Census, Aborigines 'out of contact' were not enumerated and estimates of these were made by authorities responsible for native welfare. It is estimated that at the 1954 Census 12,956 Aborigines (of which 2,311 were estimated to be in Queensland, 1,760 in South Australia, 3,516 in Western Australia, and 5,369 in the Northern Territory) were not contacted by census collectors and were not included in the census. Increasing numbers, however, were coming into contact and at the 1961 Census it is estimated that 2,000 Aborigines in Western Australia and 1,944 in the Northern Territory were not contacted by census collectors. At the 1966 Census, efforts were made to obtain complete coverage. (*b*) The figures relate to those persons who described themselves in the 1966 Census as being 50 per cent or more Aboriginal or simply as 'Aboriginal'. For reasons stated above, it has not been possible to differentiate between persons who are 50 per cent Aboriginal from those who are more than 50 per cent Aboriginal. (*c*) Separate figures for Tasmania and the Australian Capital Territory are not shown in the following tables although in all cases the Australian totals include Aborigines enumerated in these two areas.

Torres Strait Islanders are not included in the above table, but are included in the census figures shown elsewhere in this chapter. At the 1966 Census they numbered 5,403 persons.

THE ABORIGINAL POPULATION(*a*): URBAN AND RURAL, AUSTRALIA CENSUS, 30 JUNE 1966

	Persons				
	Males	*Females*	*Total*	*Proportion of total Aboriginal population*	*Aboriginal population as a proportion of total population in each area*
Urban—				%	%
Metropolitan areas	2,590	2,749	5,339	6.66	0.08
Other urban	8,187	8,370	16,557	20.64	0.57
Total urban	*10,777*	*11,119*	*21,896*	*27.30*	*0.23*
Total rural	*30,207*	*28,104*	*58,311*	*72.70*	*3.04*
Total Australia	**40,984**	**39,223**	**80,207**	**100.00**	**0.69**

(*a*) *See* footnote (*b*) to table above.

THE ABORIGINAL POPULATION(*a*), BY AGE (GROUPED AGES): AUSTRALIA CENSUS, 30 JUNE 1966

Age last birthday (years)	*Males*	*Females*	*Persons*	*Age last birthday (years)*	*Males*	*Females*	*Persons*
0– 4	6,902	6,700	13,602	65–69	886	697	1,583
5– 9	6,043	5,858	11,901	70–74	581	398	979
10–14	4,962	4,941	9,903	75 and over	391	328	719
15–19	3,633	3,650	7,283	Not stated	1,240	1,117	2,357
20–24	3,057	2,776	5,833				
25–29	2,579	2,560	5,139	**Total**	**40,984**	**39,223**	**80,207**
30–34	2,373	2,419	4,792				
35–39	2,074	2,057	4,131	Under 21	22,208	21,802	44,010
40–44	1,804	1,668	3,472	21–64	15,678	14,881	30,559
45–49	1,530	1,344	2,874	65 and over	1,858	1,423	3,281
50–54	1,199	1,056	2,255	Not stated	1,240	1,117	2,357
55–59	940	842	1,782				
60–64	790	812	1,602	**Total**	**40,984**	**39,223**	**80,207**

(*a*) *See* footnote (*b*) to table above.

THE ABORIGINAL POPULATION(*a*), BY MARITAL STATUS AUSTRALIA, CENSUS, 30 JUNE 1966

Marital status	*Males*	*Females*	*Persons*
Never married—			
Under 15 years of age	17,907	17,499	35,406
15 years of age and over	10,132	6,098	16,230
Total	*28,039*	*23,597*	*51,636*
Married	11,273	12,719	23,992
Married but permanently separated(*b*)	589	770	1,359
Divorced	45	63	108
Widowed	1,038	2,074	3,112
Total	**40,984**	**39,223**	**80,207**

(*a*) *See* footnote (*b*) to table on page 139. (*b*) Legally or otherwise.

THE ABORIGINAL POPULATION(*a*), BY LEVEL OF EDUCATIONAL ATTAINMENT STATES AND TERRITORIES, AUSTRALIA(*b*), CENSUS, 30 JUNE 1966

		Education				*No education*				
State or Territory		*Matriculation or higher(c)*	*Intermediate (d)*	*Attended or attending secondary school(e)*	*Attended or attending primary school(f)*	*Aged 0–4 years*	*Aged 5 and over*	*Total*	*Not stated*	*Grand total*
N.S.W.	M	66	248	1,730	3,164	1,364	351	1,715	420	7,343
	F	61	188	1,675	2,962	1,339	271	1,610	380	6,876
	P	127	436	3,405	6,126	2,703	622	3,325	800	14,219
Vic.	M	8	29	172	397	164	26	190	60	856
	F	14	39	193	468	146	20	166	54	934
	P	22	68	365	865	310	46	356	114	1,790
Qld	M	23	151	868	5,243	1,711	1,244	2,955	404	9,644
	F	15	151	949	5,208	1,668	993	2,661	375	9,359
	P	38	302	1,817	10,451	3,379	2,237	5,616	779	19,003
S.A.	M	19	27	300	1,267	512	582	1,094	207	2,914
	F	17	35	288	1,189	445	430	875	187	2,591
	P	36	62	588	2,456	957	1,012	1,969	394	5,505
W.A.	M	20	87	1,334	3,222	1,513	2,772	4,285	557	9,505
	F	15	111	1,331	3,072	1,447	2,481	3,928	477	8,934
	P	35	198	2,665	6,294	2,960	5,253	8,213	1,034	18,439
N.T.	M	9	35	425	3,554	1,628	4,495	6,123	505	10,651
	F	10	49	500	3,311	1,647	4,489	6,136	462	10,468
	P	19	84	925	6,865	3,275	8,984	12,259	967	21,119

(*a*) *See* footnote (*b*) to table on page 139. (*b*) Due to differing examination and education systems, the levels of educational attainment for each State and Territory are not strictly comparable. This applies particularly to the primary and secondary levels. Consequently no figures for Australia as a whole have been shown in this table. (*c*) Includes University degrees and other tertiary qualifications which require evidence of professional or semi-professional knowledge, obtained by tertiary study extending beyond secondary schooling. (*d*) Or junior or secondary school certificate level. (*e*) For example high, technical, post primary, but passed no examination at intermediate level or above. (*f*) Or passed final primary examinations.

THE ABORIGINAL POPULATION(a), BY OCCUPATIONAL STATUS AUSTRALIA, CENSUS, 30 JUNE 1966

Occupational status	*Males*	*Females*	*Persons*
In work force—			
Employed—			
Employer(b)	312	57	369
Wage earner	14,787	4,749	19,536
Helper,unpaid	116	175	291
Total employed	15,215	4,981	20,196
Unemployed	1,113	340	1,453
Total in work force	*16,328*	*5,321*	*21,649*
Not in work force—			
Child not at school	8,328	7,950	16,278
Child attending school or full-time student	10,293	10,347	20,640
Mainly dependent on pension or superannuation	2,168	2,748	4,916
Home duties	..	10,368	10,368
Institutional inmates	875	466	1,341
Other not in work force	2,992	2,023	5,015
Total not in work force	*24,656*	*33,902*	*58,558*
Grand total	**40,984**	**39,223**	**80,207**

(a) *See* footnote (b) to table on page 139. (b) Includes self-employed.

THE ABORIGINAL POPULATION(a), BY OCCUPATION: AUSTRALIA CENSUS, 30 JUNE 1966

Occupation major groups	*Males*	*Females*	*Persons*
Professional, technical and related workers	143	152	295
Administrative, executive and managerial workers	36	3	39
Clerical workers	56	106	162
Sales workers	62	49	111
Farmers, fishermen, hunters, timber getters and related workers	7,661	417	8,078
Miners, quarrymen and related workers	442	14	456
Workers in transport and communication occupations	561	33	594
Craftsmen, production-process workers and labourers, n.e.c.	6,149	409	6,558
Service, sport and recreation workers	460	3,658	4,118
Members of armed services	35	5	40
Occupation inadequately described or not stated	723	475	1,198
Total in the work force	*16,328*	*5,321*	*21,649*
Total not in the work force	24,656	33,902	58,558
Grand total	**40,984**	**39,223**	**80,207**

(a) *See* footnote (b) to table on page 139.

THE ABORIGINAL POPULATION(*a*), BY INDUSTRY: AUSTRALIA CENSUS, 30 JUNE 1966

Industry group	*Males*	*Females*	*Persons*
Primary production	7,502	1,254	8,756
Mining and quarrying	510	24	534
Manufacturing	1,433	297	1,730
Electricity, gas, water and sanitary services (production, supply and maintenance)	266	6	272
Building and construction	2,498	10	2,508
Transport and storage	491	27	518
Communication	63	23	86
Finance and property	6	8	14
Commerce	268	82	350
Public authority (n.e.i.) and defence services	199	60	259
Community and business services (including professional)	2,118	1,873	3,991
Amusement, hotels and other accommodation, cafés, personal service, etc.	214	1,203	1,417
Other industries	. .	. .	. .
Industry inadequately described or not stated	760	454	1,214
Grand total in the work force	**16,328**	**5,321**	**21,649**

(*a*) *See* footnote (*b*) to table on page 139.

Comparative summary of Aboriginal and non-Aboriginal population

A percentage distribution of the population of Australia according to the characteristics of age, marital status, birthplace, religion, occupational status, occupation and industry may be found in *The Aboriginal Population of Australia* (Reference No. 2.23).

Overseas arrivals and departures

In this section summary figures are given of the total movement of overseas passengers, and full details are given in respect of permanent arrivals and departures. For information on passengers in other categories, *see* Chapter 12, Transport, Communication and Travel.

More detailed statistics of overseas arrivals and departures, covering country of residence, country of embarkation or disembarkation, mode of travel, month of arrival or departure, etc., are shown in the tables of Section II, Overseas Arrivals and Departures, of the annual bulletin *Demography*. Monthly and quarterly mimeographed bulletins, containing the latest available statistics of overseas arrivals and departures, are also issued.

Overseas arrivals and departures since 1936

Earlier issues of the Year Book contain, in summary form, tables showing the increase of population by net migration from 1861 to the latest date, while information for individual years from 1901 is published in the annual bulletin *Demography*. The following table shows, for Australia, arrivals and departures since 1936, and refers to total movement irrespective of length of stay. Air crews and ships' crews, persons passing through Australia on board the same ship or flight, and also persons on short pleasure cruises in the south-west Pacific commencing and finishing in Australia on ships not then engaged in regular voyages, are excluded from Australian statistics of overseas arrivals and departures.

OVERSEAS ARRIVALS AND DEPARTURES, BY SEX: AUSTRALIA, 1936 TO 1969

Period	*Total arrivals*			*Total departures*			*Excess of arrivals over departures*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
1936–40(*a*)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941–45(*a*)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946–50(*a*)	398.507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951–55	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1956–60	695,445	568,652	1,264,097	481,235	377,840	859,075	214,210	190,812	405,022
1961–65	1,107,419	896,215	2,003,634	906,956	696,790	1,603,746	200,463	199,425	399,888
1965	292,184	232,952	525,136	237,673	182,607	420,280	54,511	50,345	104,856
1966	313,219	244,372	557,591	268,313	202,352	470.665	44,906	42,020	86,926
1967	361,345	275,825	637,170	311.727	233,534	545,261	49.618	42,291	91,909
1968	465,232	306,560	771,792	403,748	254,991	658,739	61,484	51,569	113,053
1969	545,559	353,299	898,858	475,840	293,972	769,812	69,719	59,327	129,046

(*a*) Excludes movements of defence personnel from September 1939 to June 1947.

Excess of arrivals over departures

The excess of total overseas arrivals over departures is one of the elements of population increase taken into account in preparing the estimated population for other than census dates (*see* pages 121 and 132 of this chapter). It is necessary to use statistics of total overseas arrivals and departures for this purpose, because Australian population statistics relate to the total population present in Australia at the date of the census or estimate, and not the population normally resident in Australia (which would include those temporarily overseas and exclude those temporarily visiting Australia). The following table gives particulars of the net gain or loss of population due to overseas migration, according to age and marital status.

EXCESS OF ARRIVALS OVER DEPARTURES, BY SEX: AGE DISTRIBUTION AND MARITAL STATUS, AUSTRALIA, 1968 AND 1969

Age and marital status	*1968*			*1969*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
			AGE DISTRIBUTION			
Age last birthday on arrival or departure—						
0– 4 . . .	7,170	6,746	13,916	8,089	7,745	15,834
5–14 . . .	11,249	10,865	22,114	14,061	13,306	27,367
15–24 . . .	16,859	11,563	28,422	19,421	12,923	32,344
25–44 . . .	21,875	16,625	38,500	23,695	19,362	43,057
45–64 . . .	3,412	4,652	8,064	3,372	4,638	8,010
65 and over . .	919	1,118	2,037	1,081	1,353	2,434
Total . .	**61,484**	**51,569**	**113,053**	**69,719**	**59,327**	**129,046**
			MARITAL STATUS			
Never married—						
Under 15 years of age	18,419	17,611	36,030	22,150	21,051	43,201
15 years of age and over . . .	18,423	7,671	26,094	20,259	8,607	28,866
Married . . .	23,531	23,822	47,353	26 270	27,347	53,617
Widowed . . .	341	1,798	2,139	432	1,646	2,078
Divorced . . .	770	667	1,437	608	676	1,284
Total . .	**61,484**	**51,569**	**113,053**	**69,719**	**59,327**	**129,046**

Classification of travellers

Since 1 July 1924 overseas travellers have been classified into two principal categories, distinguishing movements for short terms from movements for longer periods (including permanently). Prior to 1957 these categories were *temporary* and *permanent*. Thereafter the categories were entitled *short-term* and *permanent and long-term*, but the basis of classification was not changed and the figures are directly comparable for the whole period. For short-term travel, overseas visitors and Australian residents are identified separately.

Revised questions for travellers were introduced in mid-1958, and these enabled the separation, from 1 January 1959, of permanent from other long-term movements and also the identification among the permanent departures of former settlers departing.

OVERSEAS ARRIVALS AND DEPARTURES: AUSTRALIA

1946 TO 1969

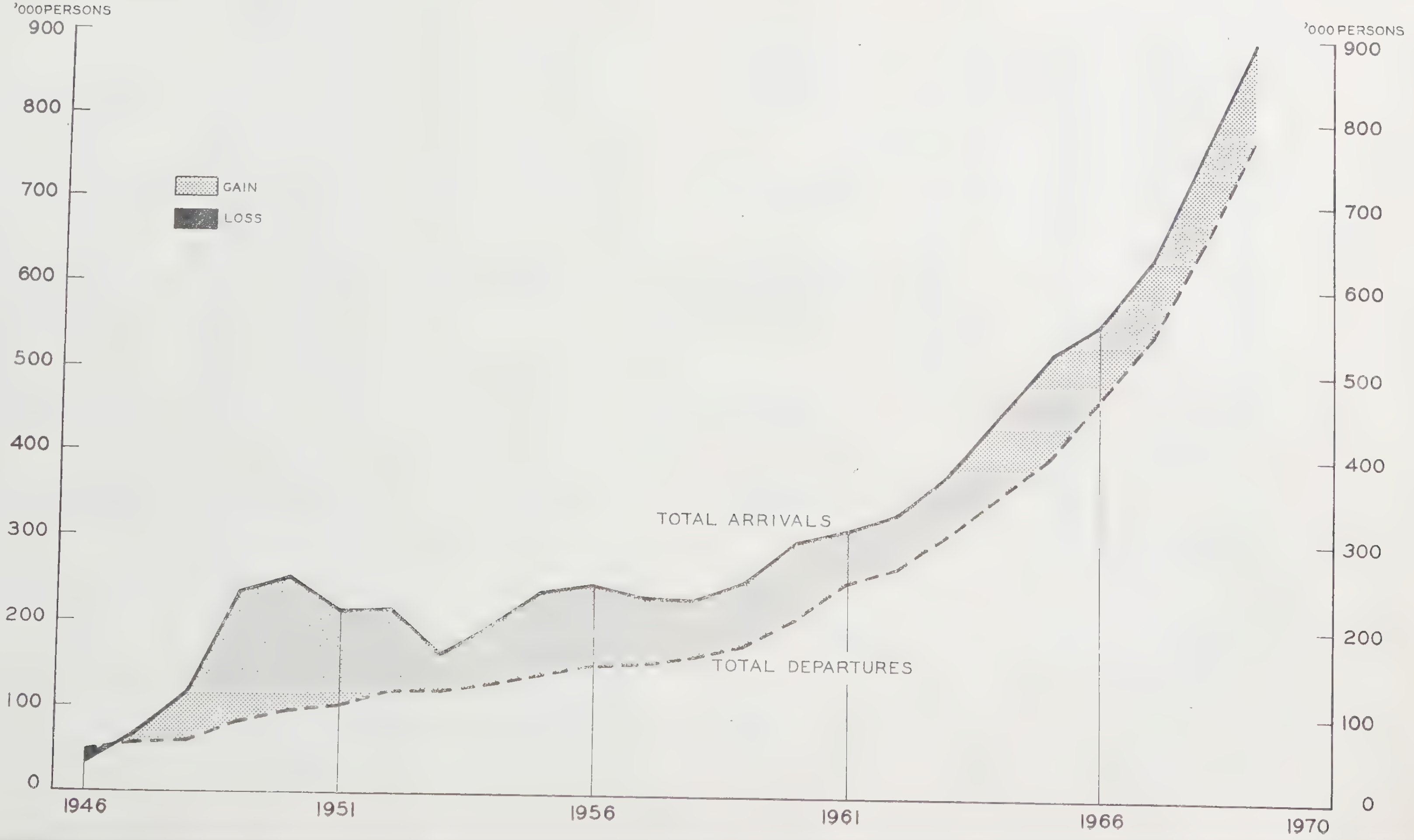


PLATE 17

The principal categories of travellers' movements are as follows:

Permanent—consists of persons arriving with the stated intention of settling permanently in Australia (settlers), and Australian residents departing with the stated intention of residing permanently abroad; the latter include *former settlers*, i.e. persons who, on departure from Australia, stated that they had come to Australia to settle, had stayed for a period of twelve months or more and were now departing permanently.

Long-term—consists of the arrival of overseas visitors and the departure of Australian residents with the stated intention of staying (in Australia or in a country abroad respectively) for twelve months or more; and the departure of visitors and the return of residents who have stayed (in Australia or in a country abroad respectively) for twelve months or more.

Short-term—consists of all other movements, including the movement of Australian troops irrespective of period of stay, and U.S. troops visiting Australia on rest and recreation leave.

This classification is based on statements made by the traveller on arrival in, or departure from, Australia. They represent the travellers' intention at that time. Many travellers subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

The numbers so classified since 1 January 1941 are as follows:

OVERSEAS ARRIVALS AND DEPARTURES: CLASSIFICATION OF TRAVELLERS AUSTRALIA, 1941 TO 1969

ARRIVALS

	Permanent and long-term movement				*Short-term movement*				
	Permanent	*Long-term*				*Overseas visitors arriving*			
Period	*Settlers arriving*	*Australian residents returning*	*Overseas visitors arriving*	*Total permanent and long-term arrivals*	*Australian residents returning*	*In transit*	*Other*	*Total*	*Total arrivals*
1941–45 .	n.a.	n.a.	n.a.	32,624	11,150	n.a.	n.a.	20,151	63,925
1946–50 .	n.a.	n.a.	n.a.	457,988	108,736	n.a.	n.a.	135,196	701,920
1951–55 .	n.a.	n.a.	n.a.	570,090	216,949	77,825	163,002	240,827	1,027,866
1956–60 .	n.a.	n.a.	n.a.	615,767	309,611	84,206	254,513	338,719	1,264,097
1961–65 .	575,992	111,288	73,848	761,128	585,203	143,424	513,879	657,303	2,003,634
1965 . .	147,507	26,260	17,497	191,264	160,544	34,071	139,257	173,328	525,136
1966 . .	141,033	28,292	19,234	188,559	181,770	32,593	154,669	187,262	557,591
1967 . .	135,019	35,655	21,637	192,311	223,038	36,299	185,522	221,821	637,170
1968 . .	159,270	36,387	23,473	219,130	252,773	37,672	262,217	299,889	771,792
1969 . .	183,416	38,308	26,867	248,591	288,990	42,485	318,792	361,277	898,858

DEPARTURES

	Permanent and long-term movement						*Short-term movement*		
	Permanent			*Long-term*					
Period	*Former settlers departing*	*Other residents departing*	*Total permanent departures*	*Australian residents departing*	*Overseas visitors departing*	*Total permanent and long-term departures*	*Australian residents departing*	*Overseas visitors departing*	*Total departures*
1941–45 .	n.a.	n.a.	n.a.	n.a.	n.a.	22,399	9,163	24,554	56,116
1946–50 .	n.a.	n.a.	n.a.	n.a.	n.a.	105,968	101,787	141,081	348,836
1951–55 .	n.a.	n.a.	n.a.	n.a.	n.a.	155,509	212,978	245,555	614.042
1956–60 .	n.a.	n.a.	n.a.	n.a.	n.a.	210,807	306,118	342,150	859,075
1961–65 .	48,491	33,989	82,480	189,526	63,593	335,599	593,119	675,028	1,603,746
1965 . .	14,803	6,110	20,913	46,313	12,429	79,655	161,692	178,933	420,280
1966 . .	18,343	7,965	26,308	54,321	11,999	92,628	183,161	194,876	470,665
1967 . .	22,302	8,502	30,804	52,148	12,801	95,753	217,746	231,762	545,261
1968 . .	23,814	7,861	31,675	51,386	12,617	95,678	251,880	311,181	658,739
1969 . .	24,739	8,892	33,631	59,027	15,602	108,260	288,805	372,747	769,812

Permanent movement

In the following paragraphs particulars are given of the *persons who on arrival in Australia stated that they came intending to settle*, and of *Australian residents who on their departure from Australia stated their intention of residing permanently abroad*, classified according to nationality, occupation, age, marital status, and State or Territory of intended residence (arrivals) or of last residence (departures).

Nationality

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT NATIONALITY, AUSTRALIA, 1968 AND 1969

(Persons)

	1968				*1969*			
	Arrivals				*Arrivals*			
Nationality	*Assisted (a)*	*Other*	*Total*	*Departures*	*Assisted (a)*	*Other*	*Total*	*Departures*
British—								
Country of citizenship—								
Australia	331	1,097	1,428	7,713	612	1,399	2,011	8,772
Canada	80	869	949	349	71	1,135	1,206	347
Ceylon, India, Pakistan	16	3,009	3,025	47	5	4,132	4,137	40
Ireland(*b*)	1,763	186	1,949	312	2,259	193	2,452	370
Malta	793	500	1,293	342	598	286	884	574
New Zealand	31	6,610	6,641	1,050	58	5,808	5,866	1,553
South Africa(*b*)	169	249	418	103	223	342	565	80
United Kingdom and Colonies	65,754	8,838	74,592	14,590	68,697	8,123	76,820	14,280
Other countries	77	1,104	1,181	224	55	1,386	1,441	171
Citizenship not stated	1,435	1,832	3,267	1,790	3,599	2,455	6,054	1,533
Total, British	*70,449*	*24,294*	*94,743*	*26,520*	*76,177*	*25,259*	*101,436*	*27,720*
American (U.S.)	1,404	1,515	2,919	961	1,936	1,472	3,408	1,205
Austrian	532	94	626	161	594	132	726	142
Belgian	226	34	260	61	280	17	297	64
Dutch	2,451	701	3,152	843	2,612	551	3,163	677
German	2,650	520	3,170	879	3,197	493	3,690	859
Greek	6,029	4,626	10,655	353	6,079	5,266	11,345	458
Italian	5,398	9,900	15,298	498	6,341	6,310	12,651	707
Lebanese	13	1,895	1,908	21	22	3,687	3,709	18
Polish	89	208	297	76	141	209	350	69
Russian	2	64	66	38	7	54	61	17
Spanish	1,567	347	1,914	85	1,507	407	1,914	116
Yugoslav	4,788	5,590	10,378	279	10,767	7,520	18,287	359
Stateless	207	168	375	32	195	157	352	27
Other	9,297	4,212	13,509	868	16,103	5,924	22,027	1,193
Grand total	**105,102**	**54,168**	**159,270**	**31,675**	**125,958**	**57,458**	**183,416**	**33,631**

(*a*) For details of assisted passage schemes *see* pages 148–50. (*b*) Included with 'British nationality' for the purpose of this table.

Occupation

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT OCCUPATION AND SEX, AUSTRALIA, 1968 AND 1969

	1968				*1969*			
	Arrivals		*Departures*		*Arrivals*		*Departures*	
Occupation group	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
Professional, technical, and related workers	5,591	3,126	1,708	1,143	6,392	3,753	1,852	1,217
Administrative, executive, and managerial workers	2,730	324	661	88	3,082	393	792	96
Clerical workers	2,654	5,900	684	1,661	2,910	6,797	659	1,763
Sales workers	2,159	1,046	506	304	2,289	1,168	523	335
Farmers, fishermen, bunters, timber getters, and related workers	2,176	73	282	11	2,062	44	277	8
Miners, quarrymen, and related workers	392	. .	99	. .	354	. .	124	. .
Workers in transport and communication	3,827	544	552	97	3,863	565	572	121
Craftsmen and production-process workers	22,275	2,421	4,143	528	25,875	2,701	4,333	506
Labourers	8,740	. .	1,046	. .	10,461	. .	1,252	. .
Service (protective and other), sport, and recreation workers	2,245	4,267	430	454	2,414	4,870	456	424
Occupation inadequately described or not stated	3,634	435	255	53	4,838	628	317	62
Persons not in work force—								
Children and students	28,155	25,934	5,386	4,953	33,132	30,646	5,672	5,208
Others	1,363	29,259	470	6,161	1,240	32,938	471	6,591
Total	**85,941**	**73,329**	**16,222**	**15,453**	**98,912**	**84,504**	**17,300**	**16,331**

Age and marital status

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT, BY SEX AGE DISTRIBUTION, AND MARITAL STATUS, AUSTRALIA, 1969

Age last birthday at time of arrival or departure	*Arrivals*				*Departures*			
	Never married	*Married*	*Widowed or divorced*	*Total*	*Never married*	*Married*	*Widowed or divorced*	*Total*
				MALES				
0– 4	12,121	. .	. .	12,121	2,034	. .	. .	2,034
5–14	17,951	. .	. .	17,951	3,080	. .	. .	3,080
15–24	19,554	4,896	42	24,492	2,392	547	4	2,943
25–44	8,991	27,318	585	36,894	1,856	4,928	108	6,892
45–64	367	5,544	275	6,186	181	1,594	103	1,878
65 and over	59	935	274	1,268	23	350	100	473
Total	*59,043*	*38,693*	*1,176*	*98,912*	*9,566*	*7,419*	*315*	*17,300*
				FEMALES				
0– 4	11,581	. .	. .	11,581	1,894	. .	. .	1,894
5–14	16,859	. .	. .	16,859	2,884	. .	. .	2,884
15–24	10,080	9,950	64	20,094	1,706	1,494	14	3,214
25–44	2,999	23,975	572	27,546	859	4,644	154	5,657
45–64	301	4,707	1,592	6,600	122	1,360	413	1,895
65 and over	72	588	1,164	1,824	42	253	492	787
Total	*41,892*	*39,220*	*3,392*	*84,504*	*7,507*	*7,751*	*1,073*	*16,331*
				PERSONS				
0– 4	23,702	. .	. .	23,702	3,928	. .	. .	3,928
5–14	34,810	. .	. .	34,810	5,964	. .	. .	5,964
15–24	29,634	14,846	106	44,586	4,098	2,041	18	6,157
25–44	11,990	51,293	1,157	64,440	2,715	9,572	262	12,549
45–64	668	10,251	1,867	12,786	303	2,954	516	3,773
65 and over	131	1,523	1,438	3,092	65	603	592	1,260
Total	**100,935**	**77,913**	**4,568**	**183,416**	**17,073**	**15,170**	**1,388**	**33,631**

State or Territory of intended residence (arrivals) or last residence (departures). The following table shows the number of settlers arriving in Australia by State or Territory of intended residence and the number of Australian residents departing permanently by State or Territory of last residence, for the years 1967 to 1969. Settlers are asked, on or before arrival, the State or Territory of Australia in which they next intend to stay for twelve months or more. The statements represent the settlers' intentions at the time and may not be realised. The allocation to States and Territories in the table is based on these statements, except that settlers proceeding to the migrant reception centre, Bonegilla, Victoria, are allocated, as far as is practicable, to the State or Territory of their placement from the centre. Residents departing permanently are asked the State or Territory in which they last stayed for twelve months or more.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT SETTLERS ARRIVING AND RESIDENTS DEPARTING, BY STATE OR TERRITORY OF INTENDED RESIDENCE (ARRIVALS) OR LAST RESIDENCE (DEPARTURES), 1967 TO 1969

(Persons)

State or Territory of intended residence (arrivals) or last residence (departures)	*Settlers arriving*			*Residents departing*		
	1967	*1968*	*1969*	*1967*	*1968*	*1969*
New South Wales	44,281	56,771	70,147	9,936	9,716	10,551
Victoria	37,735	42,680	50,063	6,920	7,340	7,487
Queensland	9,309	10,222	12,188	3,261	2,974	3,190
South Australia	14,331	14,358	16,589	4,265	3,895	3,703
Western Australia	18,379	23,538	22,897	2,309	3,366	4,100
Tasmania	1,878	2,315	2,036	462	473	609
Northern Territory	327	392	384	114	177	195
Australian Capital Territory	1,145	1,224	1,388	440	476	490
Not stated(*a*)	7,634	7,770	7,724	3,097	3,258	3,306
Total	**135,019**	**159,270**	**183,416**	**30,804**	**31,675**	**33,631**

(*a*) Includes also settlers passing through the migrant reception centre who were not placed in time for allocation to States.

Former settlers and other residents departing permanently—country of intended residence. The principal countries of intended residence of persons departing permanently during the years 1968 and 1969 are shown in the following table for 'former settlers' departing permanently (*see* definition on page 145) and other residents departing permanently.

OVERSEAS DEPARTURES—PERMANENT MOVEMENT
COUNTRY OF INTENDED RESIDENCE(*a*)
AUSTRALIA, 1968 AND 1969

Country of intended residence(a)	*1968*			*1969*		
	Former settlers	*Other residents*	*Total*	*Former settlers*	*Other residents*	*Total*
Canada	839	800	1,639	839	779	1,618
New Zealand	1,641	1,462	3,103	2,440	1,840	4,280
Papua and New Guinea	194	1,279	1,473	225	1,430	1,655
United Kingdom and Ireland	15,031	1,647	16,678	14,124	1,790	15,914
Other Commonwealth countries	722	604	1,326	960	738	1,698
Total, Commonwealth countries	*18,427*	*5,792*	*24,219*	*18,588*	*6,577*	*25,165*
Germany	724	170	894	823	195	1,018
Italy	459	135	594	655	152	807
Netherlands	684	211	895	569	203	772
Other European countries	1,396	340	1,736	1,772	373	2,145
United States of America	1,379	814	2,193	1,445	930	2,375
Other countries	745	399	1,144	887	462	1,349
Total, foreign countries	*5,387*	*2,069*	*7,456*	*6,151*	*2,315*	*8,466*
Grand total	**23,814**	**7,861**	**31,675**	**24,739**	**8,892**	**33,631**

(*a*) For a period of twelve months or more.

Assisted migration into Australia

Detailed statistics of assisted migration into Australia are shown in *Australian Immigration: Consolidated Statistics* and *Australian Immigration: Quarterly Statistical Summary* published by the Department of Immigration.

Immigration has been a major factor in Australia's economic growth. Since the 1939–45 War immigration programmes have been pursued as a central feature of government policies for national development. Since 1945 successive Australian governments have borne a substantial part of the passage costs of selected migrants from overseas countries. The following table shows the numbers of persons who were assisted to come to Australia by the Australian Government under all assisted passage schemes during the period 1946 to 1969.

ASSISTED MIGRATION: AUSTRALIA, 1946 TO 1969

Period	*Nominated and selected (assisted) arrivals*
1946–50	273,195
1951–55	275,241
1956–60	305,517
1961–65	337,132
1963	62,914
1964	79,604
1965	93,653
1966	89,743
1967	82,247
1968	105,102
1969	125,958

Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Year Book (*see* No. 38, page 576). After the outbreak of hostilities in 1939 it was decided to discontinue the grant of assisted passages for the duration of the war.

Migration from Britain

At the conclusion of the 1939–45 War two migration agreements were negotiated between the Australian and British Governments and came into operation on 31 March 1947. One of these provided for the grant of free passages to British ex-servicemen and their dependants and was terminated on 28 February 1955. The other migration agreement to provide assisted passages has continued in operation by renewal from time to time. It is now valid until 31 May 1972.

Assisted passages. The British Government now contributes £Stg150,000 per annum towards the cost of the movement of migrants to Australia. Each migrant 19 years of age or over contributes £Stg10 towards his passage costs. Migrants under 19 years of age make no contribution. The Australian Government meets the balance of the transport costs.

Eligibility for consideration for assisted passages is confined generally to citizens of the United Kingdom and Colonies, normally resident in Britain.

Hostels are operated by the Australian Government and also by the State Governments to provide transit or temporary accommodation for certain groups of newly arrived migrants.

Number of arrivals. The numbers of British migrants who came to Australia under the United Kingdom Assisted Passage Agreement during the period January 1947 to June 1969 are given in the following table according to the State or Territory of intended residence.

UNITED KINGDOM ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS(*a*)
STATES AND TERRITORIES OF INTENDED RESIDENCE
JANUARY 1947 TO JUNE 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T. and N.T.*	*Cwlth*
January 1947 to June 1962 . .	138,009	131,245	49,039	52,642	38,880	12,736	5,387	427,938
1962–63	12,581	10,261	3,687	7,764	6,431	676	300	41,700
1963–64	15,199	14,170	5,396	12,762	5,780	912	411	54,630
1964–65	23,759	16,986	6,385	15,676	6,336	1,161	385	70,688
1965–66	21,546	14,862	5,671	17,065	9,965	1,183	462	70,754
1966–67	20,586	14,995	5,538	13,768	13,965	1,234	484	70,570
1967–68	16,297	11,929	4,639	8,384	13,034	1,196	398	55,877
1968–69	23,754	14,705	5,954	12,046	14,990	1,536	399	73,384
Total January 1947 to June 1969 .	**271,731**	**229,153**	**86,309**	**140,107**	**109,381**	**20,634**	**8,226**	**865,541**

(*a*) Includes child migrants.

Maltese migration

A scheme of assisted migration entered into by the Australian and Maltese Governments in 1948 has been renewed from time to time and the current agreement was signed on 28 April 1965. The present scheme provides for selected persons aged 19 years and over to contribute $A25 towards passage costs. Migrants under 19 years of age make no contribution.

The Australian Government meets the balance of the transport costs.

Foreign migration

Australia has migration agreements and arrangements with Austria, Belgium, Germany, Greece, Italy, Netherlands, Spain, Turkey and recently with Yugoslavia whereby selected persons aged 19 years and over may migrate to Australia for a personal contribution of $A25 towards passage costs, with no contribution required from those under 19 years. Assisted passage schemes for refugees are operated in several of these countries. Details of schemes may be found in Year Book No. 55, pages 148 and 149.

The Special Passage Assistance Programme is a unilateral scheme which provides financial assistance of up to $A335 for persons 19 years and over and up to $A360 for those under 19. It applies to selected Europeans ineligible under other schemes who are resident in Britain, Ireland, Western Europe, and also certain countries in Central and South America, Africa and Asia. Single women in any of those countries and in Yugoslavia may be nominated under the Special Passage Assistance Programme

A scheme similar to the Special Passage Assistance Programme applies to the United States of America.

Residents of Australia may nominate their wives and dependent children for consideration for assisted migration.

The Intergovernmental Committee for European Migration (ICEM)

This Committee, like the office of the United Nations High Commissioner for Refugees, was established to perform functions that had formerly been carried out by the International Refugee Organization. In addition to assuming responsibility for the resettlement of refugees, ICEM has been concerned with the movements of national migrants from Europe. Australia was one of the sixteen foundation members of the Committee; there are now thirty-one member countries including the British Commonwealth countries of Australia and Malta.

The three main functions of ICEM are the movement of national migrants and the provision of related services; the resettlement of refugees and the provision of related services; and developmental activities and technical co-operation (this includes activities such as language teaching, vocational and orientation training).

Up to 31 December 1969 ICEM had moved 1,696,743 persons, of whom 548,753 (383,352 nationals and 165,401 refugees) had departed for Australia.

Summary of arrivals of assisted migrants

The following table shows the number of assisted migrants who arrived in Australia in each of the last five financial years and since January 1947. All arrivals included in this table have obtained some financial assistance from the Australian Government towards payment of their passage money. Transport to Australia for the migrants concerned has been arranged on ships and aircraft under charter to the Department of Immigration, ships and aircraft under charter to the Intergovernmental Committee for European Migration, and normal commercial shipping and airlines. The arrivals under these schemes include a small number of nationals of countries other than those referred to, and stateless persons.

ARRIVALS UNDER ASSISTED MIGRATION SCHEMES: AUSTRALIA, JANUARY 1947 TO JUNE 1969

Assisted migration scheme	*January 1947 to June 1964*	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*	*January 1947 to June 1969*
Austrian	17,716	769	824	556	466	419	20,750
Belgian	1,470	155	201	236	249	262	2,573
General Assisted Passage(*a*)	23,515	3,605	4,924	2,584	2,101	2,467	39,196
German	72,801	2,870	3,266	2,932	3,204	2,449	87,522
Greek	36,241	3,507	2,673	2,888	4,188	6,189	55,686
Italian	40,870	158	281	287	1,381	4,686	47,663
Maltese	31,609	3,655	2,368	754	910	755	40,051
Netherlands	67,234	1,551	1,652	1,383	1,781	2,406	76,007
Refugee	209,656	1,609	2,177	1,805	3,226	7,613	226,086
Spanish	7,958	49	70	91	82	878	9,128
Special Passage Assistance Programme . .	. .	. .	. .	4,638	11,170	14,508	30,316
United Kingdom . .	524,268	70,688	70,754	70,570	55,877	73,384	865,541
Other schemes . .	28,098	. .	. .	. .	. .	2,453	30,551
Total	**1,061,436**	**88,616**	**89,190**	**88,724**	**84,635**	**118,469**	**1,531,070**

(*a*) Mostly Scandinavians, U.S. Americans, and British nationals from countries other than the United Kingdom.

Immigration Advisory, Planning and Publicity Councils

Three bodies have been established to advise the Minister for Immigration on the social, economic and publicity aspects of the immigration programme.

The *Immigration Advisory Council*, established in 1947, consists of representatives of certain national organisations (e.g. the Australian Council of Trade Unions, the Returned Servicemen's League of Australia, and the National Youth Council) and advises the Minister in the sociological aspects of immigration. The *Immigration Planning Council*, established in 1949, consists of eminent persons chosen in their own right; it advises the Minister on the economic considerations affecting the immigration programme. The *Immigration Publicity Council*, established in 1962, advises on publicity and publications used in Australia and overseas. Its members represent the press (including the foreign language newspapers), radio, advertising and television interests.

Professional migration

The Department of Immigration, working in co-operation with the Department of Labour and National Service, provides a special service, including advisory staff in London, to encourage immigration of professionally qualified persons by giving advice and information on prospects in Australia and by putting such applicants in touch with Australian employers.

On 27 March 1969, the Minister for Immigration announced the establishment of a Committee on Overseas Professional Qualifications, which has the task of collating information about, and evaluating the comparability of overseas with Australian professional qualifications.

The regulation of immigration into Australia

Powers and legislation of the Commonwealth

Under section 51 (xix), (xxvii) and (xxviii) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals. Immigration into Australia is regulated by the *Migration Act* 1958–1966 which came into force on 1 June 1959.

Any immigrant entering Australia after the commencement of the Act without having been granted an 'entry permit' or who is not within an exempted class is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries, and seamen who enter with leave while their ships are in Australian ports. For the purposes of the Migration Act an immigrant includes a person entering for temporary stay.

An entry permit is normally granted at the port of entry by means of a stamp in the traveller's passport or equivalent travel document. No form of application is involved. Temporary permits are granted to visitors and persons whose stay is to be of limited duration. For other persons permits are issued without limitation as to stay. A person who is refused an entry permit must not be permitted (by the carrier company) to enter Australia; otherwise the carrier company is liable to a fine of $1,000.

The Act contains provision for the deportation of persons who enter Australia without an entry permit, who overstay their approved period of residence or who are convicted of crimes. It also contains provisions relating to the emigration of children and Aborigines.

The Act does *not* affect passport or visa requirements for travel to Australia.

The *Aliens Act* 1947–1966 provides that a register of aliens shall be maintained for every State and mainland Territory of Australia. Unless exempted, aliens 16 years of age and over are required to register with the Department of Immigration and to notify that Department of their address, occupation, or employment during the month of September each year. They are required to notify marriage within thirty days of marriage taking place. The Act provides also that the consent of the Department must be obtained before an alien may change his surname.

The *Immigration (Guardianship of Children) Act* 1946–1966 provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia (except for certain exempted groups) other than in the charge of, or for the purpose of living in the care of, a parent or adult relative. It is primarily administered through the child welfare authorities in each State and mainland Territory who, as the Minister's delegates under the Act, supervise the welfare of each 'immigrant child'.

Conditions of immigration into Australia

Admission of non-Europeans. Australia's immigration policy is based on the need to maintain a predominantly homogeneous population. It is fundamental to the policy that people coming to Australia for residence should be capable of ready integration into the community.

Australia does not exclude from residence persons of other than European origin. Immigration laws and policy permit the Minister to authorise their entry, taking into account the qualifications of persons wishing to settle here, their ability to integrate readily into the community, and other aspects including considerations of a humanitarian nature and broad national interest.

The present policy provides, *inter alia*, that:

non-Europeans, who are the spouses, unmarried minor children, aged parents or fiancees of Australian citizens, and of other British subjects already having resident status, or eligible to enter with such status, may be admitted for permanent residence (the non-European wife and unmarried minor children of a European alien in similar circumstances may also be admitted for residence);

non-Europeans who have already been admitted under temporary permit but with the expectation of indefinite stay may, after completing five years' residence, qualify to apply for resident status and subsequently for citizenship.

The following examples of persons may be considered for entry for settlement, accompanied by their wives and children, on the basis of their general suitability and possession of qualifications positively useful to Australia:

persons with specialised technical skills for appointments for which local residents are not available;

persons of high attainment in the arts and sciences, or of prominent achievement in other ways;

persons eligible to practice in a profession in Australia in which they may be absorbed without difficulty;

executives, technicians, and other specialists who have spent substantial periods in Australia—for example, with the branches here of large Asian companies—and who have qualifications or experience in positive demand here;

businessmen who in their own countries have been engaged in substantial international trading and would be able to carry on such trade from Australia;

persons who have been of particular and lasting help to Australia's interest abroad in trade or in other ways;

persons who by former residence in Australia or by association with Australia have demonstrated an interest in or identification with Australia that should make their future residence here feasible.

In addition to visitors and students, provision exists also for the entry on a limited temporary residence basis of staffs of companies, professional, technical and specialist personnel, and of persons coming for medical treatment, religious training, or as sportsmen and entertainers, and in other miscellaneous categories.

Private students. Young people may enter Australia for the purpose of study, irrespective of their countries of origin. The greater proportion of such private students in Australia are from Asia, the Pacific area and, to a lesser extent, from the continent of Africa (there are at present about 10,000 private students in Australia). The objective is to provide the opportunity for young people in these areas to come to Australia for advanced secondary, tertiary and other post-secondary study and training which will result in qualifications in demand and of use in their countries. The student, as well as meeting other requirements of entry, must have the capacity to undertake the course of study proposed and produce evidence of enrolment and assurances as to maintenance and accommodation. The student is admitted with temporary resident status and is required to acknowledge that he is obliged to return home on completing the approved course of study or training and that authority for stay and for extensions of stay as a student is dependent upon satisfactory academic progress.

Persons of European descent. Aliens of European descent, Maltese, Cypriots, Mauritians and residents of the Seychelle Islands desiring to settle permanently in Australia are required to obtain authority for admission from the Department of Immigration or an Australian overseas post. Their admission under the present policy is subject to clearance on health, character, and security grounds, and depends on their suitability as settlers generally.

Passports

Australian passports are issued under the *Passports Act* 1938–1966 and Passport Regulations. Passports are obtainable on application at offices of the Commonwealth Department of Immigration in each State, the Northern Territory, and the Australian Capital Territory, from overseas offices of that Department, from any Australian diplomatic or consular mission abroad, or from the office of any Australian Government Trade Commissioner overseas. Applicants for passports must furnish evidence of their identity and nationality and pay a fee of four dollars. Approximately 130,000 Australian passports are issued each year in Australia and abroad.

Citizenship and naturalisation

Commonwealth legislation

The *Nationality and Citizenship Act* 1948 which came into force on 26 January 1949 created the status of 'Australian citizenship', declared Australian citizens to be British subjects and recognised as British subjects the citizens of other Commonwealth countries. Australian citizenship was acquired automatically by persons who were British subjects on 26 January 1949 and who (*a*) were born in Australia or New Guinea, (*b*) were naturalised in Australia, (*c*) had been ordinarily resident in Australia or New Guinea for the five years immediately prior to that date, (*d*) were the wives of persons who became Australian citizens on that date and had entered Australia with resident status prior to 26 January 1949, or (*e*) were the children born abroad of persons referred to in (*a*) or (*b*) and who entered Australia without being placed under immigration restriction.

For the purposes of the Act 'Australia' includes the Territories of the Commonwealth that are not Trust Territories.

Australian citizenship may be acquired (*a*) by birth in Australia, (*b*) by birth abroad subject to registration of the birth at an Australian Consulate, (*c*) by naturalisation in the case of aliens or protected persons, and (*d*) by registration in the case of citizens of other Commonwealth countries and Irish citizens. Generally, aliens are required to spend five years residence in Australia but those who can read and write English proficiently may be naturalised after three years. Citizenship may be granted earlier to persons who are the spouses of Australian citizens, persons who have lived in other Commonwealth countries, persons who have served in the Commonwealth Armed Forces, persons who were formerly Australian citizens or are minors.

The Act recognises the independence of married women. Australian citizenship is not lost solely by marriage to an alien nor do alien women acquire Australian citizenship upon marriage to an Australian citizen. Alien wives of Australian citizens may be naturalised under easier conditions than those which apply to other aliens.

On 4 June 1969 the Act became the *Citizenship Act* 1948–1969.

Persons granted Australian citizenship by naturalisation and registration during 1968-69

The following table shows the previous nationalities of persons who became Australian citizens by naturalisation and registration.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALISATION, 1968-69

PREVIOUS NATIONALITY

Albanian	13	Estonian	59	Latvian	145	Turkish	30
Argentinian	18	Filipino	72	Lebanese	514	Ukrainian	184
Australian protected person	71	Finnish	264	Lithuanian	85	United Arab Republic	528
Austrian	637	French	207	Mexican	1	United States American	145
Belgian	134	German	2,569	Norwegian	46	Venezuelan	6
Brazilian	4	Greek	7,203	Polish	1,721	Vietnamese	23
British protected person	6	Hungarian	827	Portuguese	82	Yugoslav	4,512
Bulgarian	32	Indonesian	30	Romanian	69	Other	18
Burmese	110	Iranian	29	Russian	603		
Chinese	868	Iraqi	42	Spanish	391	**Total**	**35,047**
Czechoslovak	151	Israeli	224	Stateless	405		
Danish	125	Italian	8,297	Swedish	43		
Dutch	3,142	Japanese	31	Swiss	128		
		Jordanian	157	Syrian	33		
		Korean	1	Thai	12		

The numbers of persons affected by certificates of naturalisation granted in 1968–69 by State or Territory of residence were as follows: New South Wales, 13,822; Victoria, 13,291; Queensland, 1,449; South Australia, 3,490; Western Australia, 1,651; Tasmania, 588; Northern Territory, 137; Australian Capital Territory, 522; New Guinea, 97; Total, 35,047.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY REGISTRATION, 1968-69

NATIONALITY

Citizens of—		Citizens of—		Citizens of—		Citizens of—	
Canada	53	Malaysia	180	Trinidad and Tobago	9	British, country of citizenship other or not stated	285
Ceylon	406	Malta	311	Uganda	4		
Cyprus	370	New Zealand	200	United Kingdom and Colonies	4,458	**Total**	**7,650**
Guyana	1	Nigeria	1	Zambia	3		
India	820	Pakistan	47				
Ireland	178	Rhodesia	58				
Jamaica	1	Singapore	63				
Kenya	5	South Africa	197				

Persons granted Australian citizenship by naturalisation, 1945 to 1969

The numbers of persons granted Australian citizenship by naturalisation from January 1945 to June 1969, according to previous nationality, are shown in the following table.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALISATION JANUARY 1945 TO JUNE 1969

Previous nationality		*Previous nationality*		*Previous nationality*		*Previous nationality*	
Albanian	1,146	German	47,596	Polish	67,603	United Arab Republic	1,148
Austrian	9,572	Greek	58,976	Portuguese	587	United States American	1,476
Belgian	851	Hungarian	30,686	Romanian	3,078	Yugoslav	44,951
Bulgarian	1,322	Indonesian	238	Russian	11,039	Others	3,827
Chinese	6,551	Israeli	4,286	Spanish	1,815		
Czechoslovak	11,488	Italian	142,251	Stateless	15,413	**Total**	**608,710**
Danish	2,489	Japanese	717	Swedish	736		
Dutch	71,754	Latvian	18,072	Swiss	1,974		
Estonian	6,070	Lebanese	5,352	Syrian	191		
Finnish	2,720	Lithuanian	8,652	Turkish	353		
French	2,368	Norwegian	1,269	Ukrainian	20,093		

More detailed statistics of persons granted Australian citizenship are shown in *Australian Immigration: Consolidated Statistics* published by the Department of Immigration.

Migrant integration

An integration programme operates to aid the social settlement of migrants into the Australian community. In addition to direct welfare work the programme includes the following activities.

English-language tuition is arranged by the Department of Immigration to assist migrants to overcome their language problems. The services provided include instruction in Europe, on board ships travelling to Australia, and adult education classes within Australia which are supplemented by television, radio and correspondence courses. At 31 December 1968, 13,949 migrants were enrolled in 973 language classes throughout Australia and 7,266 students were enrolled to receive instruction through the correspondence lessons.

A team of psychologists undertakes surveys and other research into migrant integration and welfare in Australia and migrant selection overseas.

The Good Neighbour Movement operates as a voluntary and direct service organisation throughout Australia to assist in the integration of migrants. Membership of the movement is made up of hundreds of community organisations whose activities are co-ordinated by State Councils. The Commonwealth Government assists each Council financially through grants to cover administrative expenses.

Transitory accommodation is provided for Commonwealth nominated assisted migrants. The main types of accommodation used are hostels (present capacity 26,000) and furnished flats (present capacity 850). Migrants may stay up to twelve months in a hostel and up to six months in a flat. Operating costs of hostels, and flat rentals, are subsidised by the Government. Accommodation for unaccompanied single girls is provided in private hostels operated by the Y.W.C.A., Salvation Army and Traveller's Aid Society. Special reception facilities are provided for non-British migrants at the Bonegilla Migrant Centre, Victoria. A subsidy towards the cost of accommodation in private establishments is available to migrants wishing to settle in country areas where there are no hostels or flats.

Citizenship Conventions. Citizenship Conventions are convened in Canberra at two-yearly intervals by the Commonwealth Government. Delegates from a wide range of community organisations and from Commonwealth and State Governments participate. The subjects discussed relate to the integration of migrants, Australian citizenship and the role of immigration in Australia's development.

Population of External Territories

Ordinances of the individual External Territories under the control of Australia provide for a census of the population to be taken on the day prescribed for the taking of a census in the Commonwealth of Australia. The following table shows the population of the Territories of Christmas Island, Cocos (Keeling) Islands, Norfolk Island, Papua and the Trust Territory of New Guinea at the census of 30 June 1966 and as estimated at 30 June 1969.

POPULATION: EXTERNAL TERRITORIES, 30 JUNE 1966 AND 1969

	Census 30 June 1966			*Estimate 30 June 1969*
Territory	*Males*	*Females*	*Persons*	*Persons*
Christmas Island	2,154	1,232	3,386	3,439
Cocos (Keeling) Islands	375	309	684	607
Norfolk Island	563	584	1,147	1,377
Papua—				
Indigenous population	(*a*)310,153	(*a*)281,806	(*a*)591,959	637,006
Non-indigenous population	8,307	6,070	14,377	n.a.
Total, Papua	*318,460*	*287,876*	*606,336*	(*b*)n.a.
Trust Territory of New Guinea—				
Indigenous population	(*a*)810,154	(*a*)748,209	(*a*)1,558,363	1,702,280
Non-indigenous population	11,744	8,547	20,291	n.a.
Total, New Guinea	*821,898*	*756,756*	*1,578,654*	(*b*)n.a.

(*a*) The 1966 Census of Papua and New Guinea was the first to include the indigenous population, and was based upon a 10 per cent sample of rural villages in the two Territories. (*b*) The total population for Papua and New Guinea was 2,382,677 at 30 June 1969.

Further particulars concerning the indigenous populations of the Territories are given in the chapter The Territories of Australia.

International statistics of population

In the following tables the population, density, rate of growth, natural increase and masculinity are shown in respect of all countries which had an estimated population of at least five million persons in 1968, excepting for the group 'Oceania', which is treated in more detail. The source of these figures is the 1968 *Demographic Yearbook*, which is prepared and published by the Statistical Office of the United Nations. The tables include figures varying in reliability and accuracy, there being considerable variation in the quality of demographic statistics of between countries, but this information has been shown to provide a guide as to the magnitude and trend of population movements in overseas countries.

Where the information available to the Statistical Office of the United Nations relates to only part of the population of a country, the population characteristic (e.g. rate of growth), or vital statistics rate (e.g. marriages), has been omitted from the tables, and this is indicated by a footnote.

For fuller particulars of the differences in the quality of the statistics and their reliability and for other qualifications, references should be made to the detailed explanations contained in the *Demographic Yearbook* of the Statistical Office of the United Nations (*see* particularly Technical Notes on Statistical Tables and footnotes to the tables).

Population, rate of growth and density: world, continents and regions

The following table shows for the world, continents and regions, estimated population in 1930, 1940, 1950, 1960, 1963 and 1968. The annual rate of increase (per cent), together with the average annual increase, during the period 1960–1968, is also shown. Population figures have been adjusted for under enumeration and errors in estimation. In preparing these figures, the Population Branch of the United Nations revises, from time to time, the estimates for previous years as new data become available, for example, from a census. The figures are estimates only.

POPULATION, DENSITY AND RATE OF INCREASE FOR THE WORLD AND CONTINENTS—SELECTED YEARS

(*Source:* United Nations *Demographic Yearbook*, 1968)

Continent and region	*Population*								*Density (persons per square mile) 1968*
	Estimates of mid-year population (millions)						*Annual rate of increase 1960–68 (per cent)*	*Average annual increase 1960–68 (millions)*	
	1930	*1940*	*1950*	*1960*	*1963*	*1968*			
World total . . .	**2,070**	**2,295**	**2,517**	**3,005**	**3,176**	**3,483**	**1.9**	**59.8**	**67**
Africa	*164*	*191*	*222*	*278*	*297*	*336*	*2.4*	*7.3*	*28*
Western Africa . .	48	58	67	88	94	106	2.4	2.3	44
Eastern Africa . .	46	54	63	77	82	93	2.4	2.0	39
Northern Africa . .	39	44	53	66	71	81	2.6	1.9	23
Middle Africa . .	21	23	25	29	31	34	1.9	0.6	13
Southern Africa . .	10	12	14	18	19	22	2.4	0.5	21
America	*242*	*274*	*329*	*412*	*440*	*489*	*2.2*	*9.6*	*31*
Northern America . .	134	144	166	199	208	222	1.4	2.9	26
Latin America. . .	108	130	163	213	232	267	2.9	6.8	34
Tropical South America.	55	67	84	112	122	142	3.1	3.8	26
Middle America . .	22	27	35	48	53	63	3.4	1.9	65
Temperate South America	19	22	27	33	35	38	1.9	0.6	23
Caribbean . . .	12	14	17	20	22	24	2.3	0.5	267
Asia	*1,120*	*1,244*	*1,381*	*1,660*	*1,760*	*1,946*	*2.0*	*35.8*	*184*
East Asia . . .	591	634	684	794	827	889	1.4	11.9	197
Mainland Region . .	501	533	563	654	680	730	1.4	9.5	171
Japan	64	71	83	93	96	101	1.0	1.0	707
Other East Asia . .	26	30	38	47	51	58	2.7	1.4	580
South Asia . . .	529	610	697	866	933	1,057	2.5	23.9	174
Middle South Asia .	371	422	479	588	634	716	2.5	16.0	275
South East Asia . .	127	150	173	219	236	270	2.7	6.4	155
South West Asia . .	31	38	45	59	63	71	2.5	1.5	41
Europe	*355*	*380*	*392*	*425*	*437*	*455*	*0.9*	*3.8*	*238*
Western Europe . .	108	113	123	135	140	147	1.1	1.5	386
Southern Europe . .	93	103	108	117	120	126	0.9	1.1	249
Eastern Europe . .	89	96	88	97	99	102	0.6	0.6	267
Northern Europe . .	65	68	73	76	78	80	0.7	0.5	127
Oceania	*10.0*	*11.1*	*12.7*	*15.8*	*16.8*	*18.5*	*2.1*	*0.34*	*5*
Australia and New Zealand	8.0	8.7	10.1	12.7	13.5	14.8	1.9	0.26	5
Melanesia	1.6	1.8	1.9	2.2	2.4	2.6	2.4	0.05	13
Polynesia and Micronesia .	0.4	0.6	0.7	0.9	0.9	1.1	2.9	0.03	96
Union of Soviet Socialist Republics . . .	*179*	*195*	*180*	*214*	*225*	*238*	*1.3*	*3.0*	*28*

Population, density, rate of growth, natural increase, and masculinity of selected countries.

Certain details of the population of the more populous countries within continental groups are shown in the following table. As explained above, reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1968, regarding geographical units used, boundaries of areas, reliability of estimates, etc.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE AND MASCULINITY—SELECTED COUNTRIES

(*Source:* United Nations *Demographic Yearbook*, 1968)

Country	*Population mid-year 1968 (thousands)*	*Density 1968 (persons per square mile)*	*Annual rate of increase 1963–68 (per cent)*	*Natural increase*		*Masculinity at latest census*	
				Year	*Rate (per thousand population)*	*Year*	*Rate (number of males per 100 females)*
Africa—							
Nigeria	62,650	176	2.5	..	(*a*)	1963	102.0
United Arab Republic, Egypt	31,680	83	2.5	1968	38.2	1966	101.8
Ethiopia	23,900	52	1.8	..	(*a*)	..	(*a*)
South Africa	19,167	41	2.4	..	(*a*)	1960	101.1
Congo, Democratic Republic of	(*b*)16,730	18	2.2	1955–57	43	1955–58	94.4
Sudan	14,770	16	2.9	1956	51.7	1956	102.2
Morocco	14,580	85	2.9	1962	46.1	1960	99.9
Algeria	12,943	13	2.9	1967	42.7	..	(*a*)
Tanzania—							
Tanganyika	12,229	34	2.5	1957	46	1967	95.1
Zanzibar	361	355	1.9	1958	30	1967	102.3
Kenya	10,209	47	2.9	1962	50	1962	98.1
Ghana	8,376	91	2.7	1960	47–52	1960	102.2
Uganda	8,133	88	2.5	1959	42	1959	100.9
Mozambique	7 274	23	1.4	1967	2.7	1960	91.8
Madagascar	6,500	28	..	1966	46	1966	96.8
Cameroon	5,562	31	2.1	..	(*a*)	..	(*a*)
Angola	5,362	10	1.3	1967	26.5	1960	103.7
Upper Volta	5,175	49	2.1	1960–61	53.0	1960–61	100.8
North America—							
United States of America	201,152	54	1.2	1968	17.4	1960	97.1
Mexico	47,267	62	3.5	1960–65	44–45	1960	99.5
Canada	20,772	5	1.9	1968	17.7	1966	100.9
Cuba	8,074	184	2.2	1960–65	34–36	1953	105.0
South America—							
Brazil	88,209	26	3.0	1960–65	41–43	1960	99.7
Argentina	23,617	23	1.5	1960–65	22–23	1960	100.6
Colombia	19,825	44	3.2	1960–65	41–44	1964	97.1
Peru	12,772	26	3.1	1960–65	44–45	1961	98.9
Venezuela	9,686	28	3.5	1960–65	46–48	1961	103.3
Chile	9,351	31	2.4	1960–65	34–36	1960	96.1
Ecuador	5,695	52	3.4	1960–65	47–50	1962	99.9
Asia—							
China (mainland)	730,000	197	1.4	1957	34	1953	107.6
India	523,893	414	2.5	1951–61	41.7	1961	106.2
Indonesia	112,825	197	2.4	1962	43.0	1961	97.3
Pakistan	109,520	324	2.1	1965	49	1961	111.1
Japan	101,090	707	1.1	1967	19.4	1965	96.4
Philippines	35,993	311	3.5	1967	22.0	1960	101.8
Thailand	33,693	171	3.1	1964	46.0	1960	100.4
Turkey in Asia	30,660	106	2.5	1966	43	..	(*a*)
Korea, Republic of	30,470	259	2.5	1955–60	44.7	1966	101.3
Iran	26,985	41	3.0	1946–51	48	1966	107.0
Burma	26,389	101	2.1	1955	50	1941	104.0
Vietnam (North)	20,700	337	3.1	..	(*a*)	1960	93.4
Vietnam, Republic of	17,414	259	2.6	1960	35	..	(*a*)
Afghanistan	16,113	65	2.1	..	(*a*)	..	(*a*)
China, Republic of (Formosa)	13,466	969	2.9	1968	29.3	1966	112.1
Korea (North)	13,000	280	2.5	1960	38.5	..	(*a*)
Ceylon	11,964	471	2.4	1967	31.6	1963	108.2
Nepal	10,700	197	1.9	1961	41.1	1961	96.9
West Malaysia (Malaya)	8,840	174	3.0	1967	35.2	1957	106.5
Iraq	8,634	52	2.4	1966	17.8	1965	103.7
Saudi Arabia	7,100	8	1.7	..	(*a*)	..	(*a*)
Cambodia	6,557	93	2.2	1962	50	1962	100.7
Syria	5,738	80	2.9	1967	33.0	1960	105.6
Yemen	5,000	67	..	..	(*a*)	..	(*a*)
Europe—							
Germany—							
Federal Republic of	58,015	606	0.9	1968	19.7	1961	89.4
Eastern	16,002	383	−0.1	1968	14.3	1964	84.1
West Berlin	2,150	11,575	−0.2	1968	10.9	1961	73.2
East Berlin	1,082	6,954	0.4	1966	15.5	1964	77.8
United Kingdom	55,283	588	0.6	1968	17.1	1961	93.6
Italy	52,750	453	0.8	1968	17.3	1961	94.0
France	49,920	236	0.9	1968	16.8	1962	94.6
Spain	32,411	166	0.8	1968	20.5	1960	94.2
Poland	32,207	267	1.0	1968	16.3	1960	93.7
Yugoslavia	20,186	205	1.1	1968	18.9	1961	95.1
Romania	19,721	215	0.9	1967	27.4	1966	96.0

For footnotes *see* next page.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE AND MASCULINITY—SELECTED COUNTRIES—*continued*

Country	*Population mid-year 1968 (thousands)*	*Density 1968 (persons per square mile)*	*Annual rate of increase 1963–68 (per cent)*	*Natural increase*		*Masculinity at latest census*	
				Year	*Rate (per thousand population)*	*Year*	*Rate (number of males per 100 females)*
Europe—*continued*							
Czechoslovakia	14,362	290	0.6	1967	15.1	1961	95.2
Netherlands	12,743	982	1.3	1968	18.6	1960	99.2
Hungary	10,255	285	0.3	1968	15.1	1960	93.2
Belgium	9,619	816	0.7	1968	14.9	1961	95.8
Portugal	9,505	267	1.0	1968	20.5	1960	91.9
Greece	8,803	174	0.8	1968	18.2	1961	95.2
Bulgaria	8,370	194	0.7	1968	16.9	1965	99.9
Sweden	7,912	47	0.8	1968	14.3	1965	99.8
Austria	7,349	228	0.5	1968	17.1	1961	87.3
Switzerland	6,147	386	1.3	1968	17.4	1960	96.3
Oceania—							
Australia	12,031	5	1.9	1968	20.0	1966	101.4
New Zealand	2,751	26	1.7	1968	22.6	1966	100.8
New Guinea (Trust Territory)	1,680	18	2.1	1967	26.6	1966	108.9
Papua	620	8	2.7	1967	31.7	1966	111.3
U.S.S.R.—							
Union of Soviet Socialist Republics	237,808	28	1.1	1968	17.3	1959	81.9

(*a*) Not available or information relates to a segment of a population only. (*b*) African population only.

CHAPTER 8

VITAL STATISTICS

The tables in this chapter are confined to the principal characteristics of vital statistics for Australia and relate, in the main, to the year 1969 for marriages and 1968 for births, deaths, and infant deaths. Comparisons have been restricted, in general, to the individual years 1965 to 1969 and the five-year periods 1941–45 to 1961–65, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletins, *Demography* and *Causes of Death*. Current information is published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and a mimeographed series issued at intervals throughout the year on population and vital statistics.

For years before 1967 the statistics of births, deaths and marriages exclude particulars of full-blood Aborigines. Differences between the statistics now published and those formerly published which implied the exclusion of Aboriginal vital events cannot be taken as reliable statistics of births, deaths, or marriages among full-blood Aborigines, because in many areas no satisfactory administrative or other basis existed for distinguishing vital events among full-blood Aborigines from those among part-Aborigines or the rest of the population.

Vital statistics for certain countries of the world are set out in International Vital Statistics at the end of this chapter.

Provisions for registration and compilation of statistics

In Australia vital statistics are compiled from information supplied for the registration of births, deaths, and marriages. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths, and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853, and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration having been taken over from South Australia in 1911 in respect of the Northern Territory and from New South Wales in 1930 in respect of the Australian Capital Territory. The authority responsible for the registration of births, deaths, and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

Information concerning a birth is required to be supplied within 28 days in the Australian Capital Territory and the Northern Territory, and 60 days in the States. For the registration of a death the period allowed is 8 days in Tasmania, 14 days in South Australia, Western Australia, Australian Capital Territory, and Northern Territory, 21 days in Victoria, and 30 days in New South Wales and Queensland.

The *Marriage Act* 1961–1966 came into operation on 1 September 1963, placing the marriage laws of all States, the mainland Territories and Norfolk Island on a uniform basis. Provision is made for the celebration of marriage by ministers of religion registered with the Registrar of Ministers of Religion appointed in each State and Territory by the Attorney-General, and by certain civil officers. In all cases the authorised celebrant is required to register particulars of the parties married with the appropriate registering authority in each State or Territory. The celebrant is requested to register a marriage as soon as practicable and in any case not later than fourteen days after the marriage.

Information is required in all States and Territories concerning what have been commonly known as 'stillbirths'. These are excluded from all the tables of births and deaths in this chapter and are included only in the special tables of stillbirths shown on page 175. The statistics of stillbirths shown relate to those, in several States, of at least seven months gestation or, in other States and the two Territories, the approximate equivalent of twenty-eight weeks. The statistics relate to periods up to the end of 1968. Compulsory registration was introduced in Western Australia in 1908, the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, the Northern Territory in 1949, Victoria in 1953, Queensland in 1959 and Tasmania in 1967.

The data for the compilation of vital statistics are obtained from registry records and dispatched, through the Statistical Office in each State and Territory, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonwealth Statisticians compile and publish statistics relating to their respective States.

Marriages

Numbers of marriages and crude marriage rates

The numbers of marriages registered in each State and Territory in five-year periods from 1941–45 to 1961–65, and for each of the years 1965 to 1969, and crude marriage rates for the same periods are shown in the following tables. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 575.

MARRIAGES(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Annual average—									
1941–45 . .	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946–50 . .	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951–55 . .	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
1956–60 . .	28,432	20,422	10,254	6,517	5,145	2,573	190	321	73,854
1961–65 . .	31,788	23,262	11,437	7,514	5,768	2,700	248	533	83,250
Annual total—									
1965 . .	35,176	26,421	12,967	8,680	6,448	2,888	296	670	93,546
1966 . .	35,575	27,089	13,325	9,051	7,001	2,946	312	747	96,046
1967 . .	37,077	28,004	13,634	9,434	7,430	3,213	325	883	100,000
1968 . .	39,213	29,724	14,860	9,652	8,086	3,426	419	965	106,345
1969 . .	41,286	30,860	15,669	10,599	8,993	3,532	413	1,118	112,470

(*a*) Excludes particulars of full-blood Aborigines before 1967.

CRUDE MARRIAGE RATES(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Average annual rate—									
1941–45	9.97	9.86	10.04	10.61	9.74	8.61	7.2	7.6	9.94
1946–50	9.90	9.72	9.41	9.87	10.01	9.56	9.4	9.4	9.77
1951–55	8.41	8.34	7.91	8.11	8.44	8.35	9.1	8.2	8.29
1956–60	7.70	7.50	7.14	7.26	7.36	7.69	8.6	7.5	7.50
1961–65	7.86	7.64	7.27	7.42	7.43	7.49	8.1	7.3	7.63
Annual rate—									
1965	8.43	8.35	7.94	8.16	7.91	7.85	8.4	7.6	8.25
1966	8.40	8.41	8.01	8.29	8.36	7.93	8.3	7.7	8.31
1967	8.60	8.55	8.01	8.49	8.47	8.53	5.5	8.5	8.46
1968	8.94	8.93	8.57	8.57	8.89	8.96	6.5	8.6	8.83
1969	9.22	9.11	8.86	9.26	9.49	9.09	6.1	9.1	9.14

(*a*) Number of marriages per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1967.

NOTE. In some instances rates are based on too few marriages to warrant calculation to the second decimal place.

The crude marriage rates for Australia and the more populous countries of the world are shown for the latest available year in International Vital Statistics at the end of this chapter.

Previous marital status

The following table shows the relative marital status of bridegrooms and brides in 1969.

MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1969

Previous Marital status of bridegrooms	*Previous Marital status of brides*			*Total bride-grooms*
	Spinsters	*Widows*	*Divorced*	
Bachelors . .	97,644	1,191	3,401	102,236
Widowers . .	913	1,672	840	3,425
Divorced. . .	3,629	843	2,337	6,809
Total brides .	**102,186**	**3,706**	**6,578**	**112,470**

Age and marital status at marriage

Particulars of age at marriage in age groups, and previous marital status, of bridegrooms and brides in 1969 are given hereunder. There were 16,046 males under 21 years of age married during 1969, while the corresponding number of females was 47,090. At the other extreme there were 1,123 bridegrooms and 578 brides in the age group 65 years and over.

AGE AND PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1969

Age at marriage (years)	*Bridegrooms*				*Brides*			
	Bachelors	*Widowers*	*Divorced*	*Total*	*Spinsters*	*Widows*	*Divorced*	*Total*
Under 20 .	7,873	..	..	7,873	31,579	6	7	31,592
20–24 . .	61,134	16	147	61,297	56,907	114	603	57,624
25–29 . .	22,847	80	1,018	23,945	9,372	210	1,334	10,916
30–34 . .	5,761	119	1,254	7,134	2,257	238	1,238	3,733
35–39 . .	2,214	160	1,085	3,459	834	302	962	2,098
40–44 . .	1,182	284	1,089	2,555	469	431	935	1,835
45–49 . .	590	419	922	1,931	310	575	693	1,578
50–54 . .	278	457	571	1,306	168	552	452	1,172
55–59 . .	170	537	390	1,097	120	473	216	809
60–64 . .	82	463	205	750	80	365	90	535
65 and over .	105	890	128	1,123	90	440	48	578
Total .	**102,236**	**3,425**	**6,809**	**112,470**	**102,186**	**3,706**	**6,578**	**112,470**

The relative ages of bridegrooms and brides in 1969 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1969

Age of bride-groom (years)	*Age of bride (years)*								*Total bride-grooms*
	Under 15	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45 and over*	
Under 20 .	4	6,506	1,316	43	4	..	..	..	7,873
20–24 . .	2	21,336	37,565	2,169	179	33	8	5	61,297
25–29 . .	1	3,226	14,976	4,785	754	140	47	16	23,945
30–34 . .	..	383	2,840	2,328	1,060	332	135	56	7,134
35–39 . .	..	86	626	970	833	512	261	171	3,459
40–44 . .	..	31	186	398	536	521	501	382	2,555
45–49 . .	..	10	81	145	239	331	440	685	1,931
50–54 . .	..	2	23	47	76	131	237	790	1,306
55–59 . .	..	5	7	20	35	64	141	825	1,097
60–64 . .	..	..	4	8	10	24	38	666	750
65 and over .	..	..	..	3	7	10	27	1,076	1,123
Total brides	**7**	**31,585**	**57,624**	**10,916**	**3,733**	**2,098**	**1,835**	**4,672**	**112,470**

The average age at marriage of brides and bridegrooms has declined during recent years. The average ages, in years, of brides for each of the five years to 1969 were: 1965, 24.09; 1966, 24.02; 1967, 24.03; 1968, 23.90; and 1969, 23.84. The average ages, in years, of bridegrooms were: 1965, 27.24; 1966, 27.10; 1967, 27.01; 1968, 26.76; and 1969, 26.63. The difference in the average age at marriage between brides and bridegrooms is generally about three years, the difference in 1969 being 2.79 years.

Countries of birth of persons marrying

The following table shows the relative countries of birth of bridegrooms and brides married in 1969.

RELATIVE COUNTRIES OF BIRTH OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1969

	Country of birth of bride											
Country of birth of bridegroom	*Australia*	*New Zealand*	*United Kingdom and Ireland*	*Germany*	*Greece*	*Italy*	*Malta*	*Netherlands*	*Yugoslavia*	*Other European*	*Other and unspecified*	*Total bridegrooms*
Australia . .	74,199	370	4,825	1,069	69	251	206	780	65	467	939	83,240
New Zealand .	802	120	89	14	1	4	2	9	1	19	21	1,082
United Kingdom and Ireland .	6,680	105	2,253	174	13	53	50	127	14	113	233	9,815
Germany . .	1,390	20	195	368	9	17	11	39	16	139	58	2,262
Greece . .	215	3	25	15	2,269	12	6	4	9	17	101	2,676
Italy . .	986	11	121	49	18	2,035	22	32	30	52	53	3,409
Malta . .	334	. .	48	14	4	7	476	6	2	4	10	905
Netherlands .	1,122	9	177	47	2	12	4	280	6	34	49	1,742
Yugoslavia .	337	9	55	53	23	55	6	14	826	56	27	1,461
Other European	1,124	28	198	192	18	26	9	40	36	753	118	2,542
Other and unspecified	1,660	41	226	80	75	31	14	44	11	90	1,064	3,336
Total brides	**88,849**	**716**	**8,212**	**2,075**	**2,501**	**2,503**	**806**	**1,375**	**1,016**	**1,744**	**2,673**	**112,470**

Celebration of marriages

Under the provisions of the *Marriage Act* 1961–1966 marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrars of Ministers of Religion in each State or Territory, or by certain civil officers, in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1969 belonged to more than fifty different religious denominations. The figures for 1969 are shown in the following table.

MARRIAGES BY AUTHORISED CELEBRANTS: STATES AND TERRITORIES, 1969

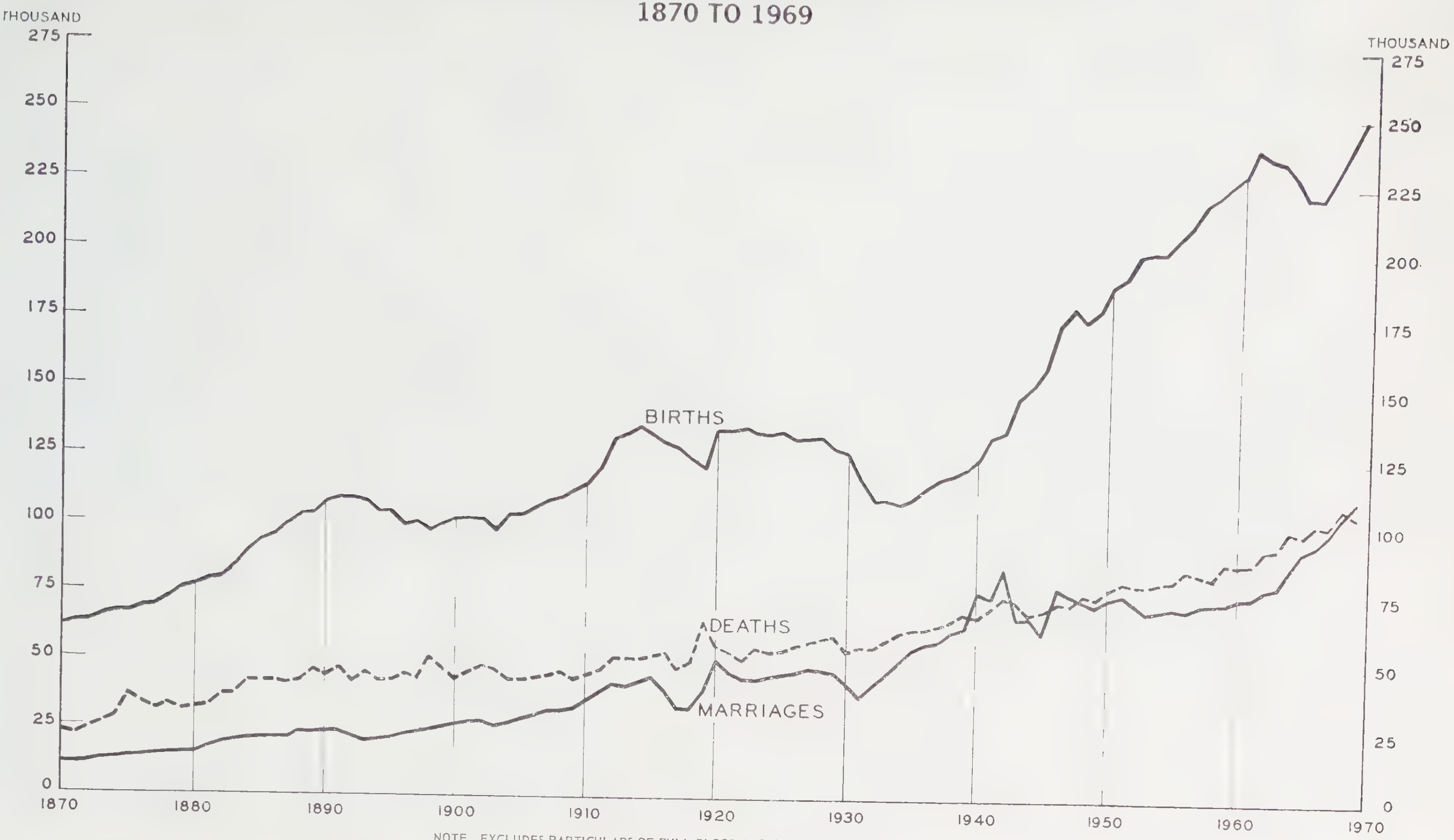
									Australia	
Category of authorised celebrant	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*No.*	*Proportion of total*
Registered Ministers of recognised religious denominations—										
Church of England .	12,662	7,142	3,999	2,289	2,754	1,483	48	270	30,647	27.25
Roman Catholic . .	11,630	9,070	4,418	2,171	2,436	759	113	366	30,963	27.53
Methodist . . .	4,451	3,269	2,151	2,645	975	444	19	41	13,995	12.44
Presbyterian . . .	3,847	4,767	2,247	415	523	148	36	104	12,087	10.75
Orthodox . . .	1,224	1,374	123	176	82	12	19	21	3,031	2.69
Baptist	672	516	334	246	110	90	4	16	1,988	1.77
Lutheran . . .	189	316	409	624	46	8	10	17	1,619	1.44
Churches of Christ .	172	588	131	321	162	25	. .	18	1,417	1.26
Congregational . .	334	383	141	347	109	52	27	4	1,397	1.24
Salvation Army . .	147	153	102	49	48	25	2	2	528	0.47
Other	695	732	307	162	175	71	4	13	2,159	1.92
Other authorised celebrants—										
Ministers of religion .	99	174	23	26	43	1	. .	1	367	0.33
Civil officers . . .	5,164	2,376	1,284	1,128	1,530	414	131	245	12,272	10.91
Grand total . .	**41,286**	**30,860**	**15,669**	**10,599**	**8,993**	**3,532**	**413**	**1,118**	**112,470**	**100.00**
Proportion of total (per cent)—										
Ministers of religion . .	87.49	92.30	91.81	89.36	82.99	88.28	68.28	78.09	89.09	. .
Civil officers . .	12.51	7.70	8.19	10.64	17.01	11.72	31.72	21.91	10.91	. .

Divorce

The number of dissolutions of marriage, nullities of marriage and judicial separations was 10,789 in 1968 and 10,979 in 1969. Further information may be found in the chapter Public Justice.

BIRTHS, DEATHS AND MARRIAGES: AUSTRALIA

1870 TO 1969



NOTE. EXCLUDES PARTICULARS OF FULL-BLOOD ABORIGINES BEFORE 1967

PLATE 18

Births and Fertility

Natural increase of a population has been defined as the excess of births over deaths, and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

Number of live births

There are various methods of measuring the fertility of the population by relating the number of births to the numbers of the population. In each the basic data are, of course, the numbers of live births. Statistics of live births registered in Australia between 1941 and 1969 are contained in the following table which shows the average annual number of live births in each State and Territory for each five-year period from 1941 to 1965 and the total number of live births for each year from 1965 to 1969. Corresponding figures for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 583.

LIVE BIRTHS(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Annual average—									
1941–45 .	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946–50 .	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951–55 .	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956–60 .	79,613	61,279	34,171	19,977	16,922	8,517	694	1,286	222,459
1961–65 .	82,896	65,193	35,357	21,377	16,861	8,439	897	1,932	232,952
Annual total—									
1965 .	78,069	63,550	33,551	20,891	16,186	7,535	914	2,158	222,854
1966 .	77,758	64,008	32,843	20,319	17,007	7,401	972	2,318	222,626
1967 .	78,841	65,485	34,692	20,386	18,023	7,547	1,921	2,401	229,296
1968 .	81,696	70,228	35,190	21,207	19,541	8,317	2,084	2,643	240,906
1969 .	86,036	71,035	36,576	21,977	20,754	8,445	2,274	3,079	250,176

(*a*) Excludes particulars of full-blood Aborigines before 1967.

Crude birth rates

The oldest and most popular method of measuring fertility is to relate the number of births to the total population, which gives the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 167 and 169. Crude birth rates for each five-year period from 1941 to 1965 and for each year from 1965 to 1969 are set out below for each State and Territory.

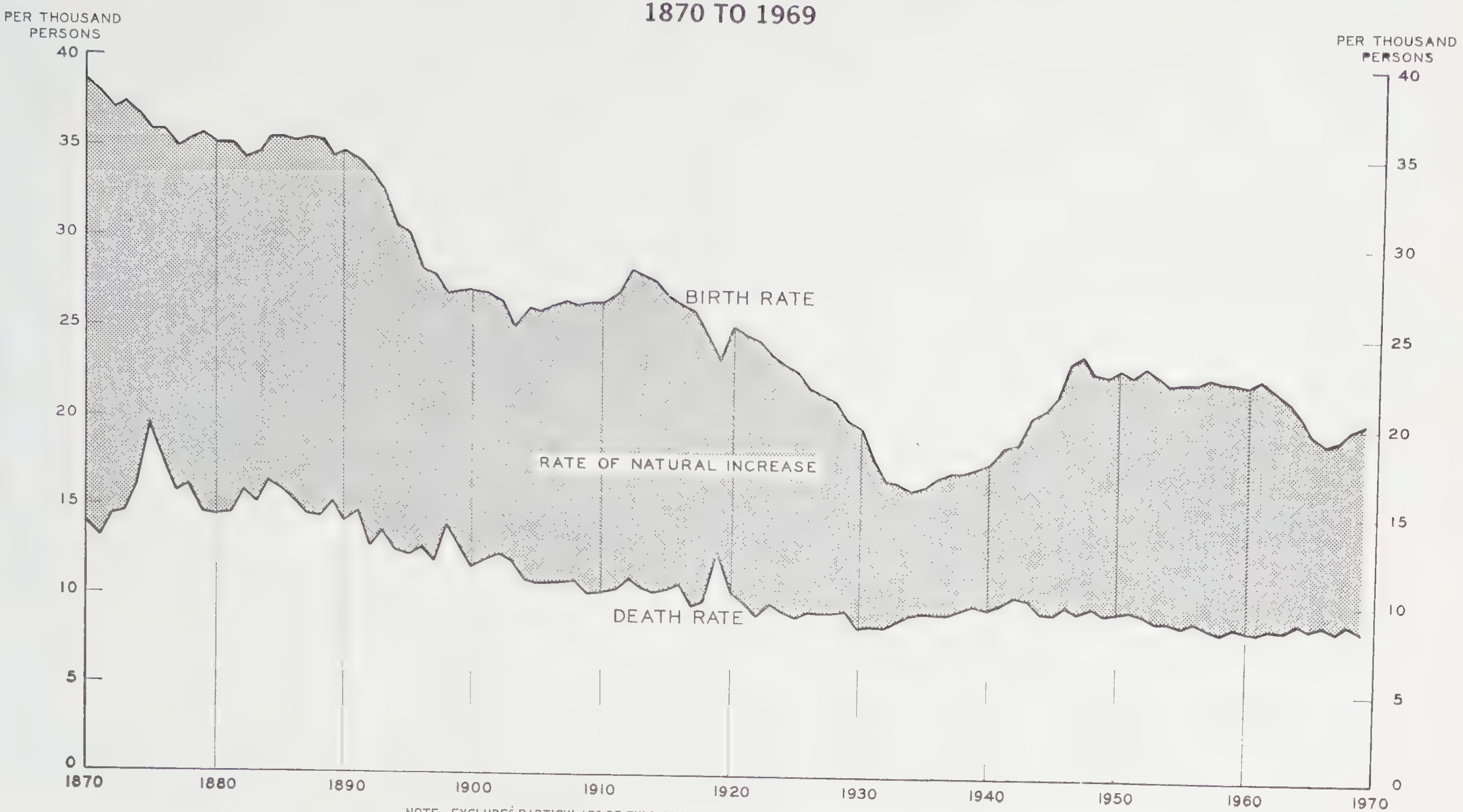
CRUDE BIRTH RATES(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Average annual rates—									
1941–45 .	19.79	19.27	22.28	20.43	21.72	22.23	11.4	26.8	20.28
1946–50 .	22.60	22.51	24.69	24.41	25.24	26.71	23.8	37.9	23.39
1951–55 .	21.78	22.42	24.11	23.25	25.37	25.58	29.4	32.22	22.86
1956–60 .	21.55	22.52	23.80	22.27	24.20	25.45	31.49	30.10	22.59
1961–65 .	20.49	21.42	22.49	21.11	21.71	23.41	29.30	26.31	21.34
Annual rates—									
1965 .	18.71	20.08	20.54	19.63	19.85	20.48	25.8	24.4	19.65
1966 .	18.35	19.87	19.74	18.62	20.31	19.92	25.9	24.0	19.27
1967 .	18.30	19.98	20.38	18.34	20.55	20.04	32.3	23.1	19.40
1968 .	18.62	21.10	20.30	18.84	21.47	21.76	32.4	23.4	20.00
1969 .	19.21	20.97	20.67	19.19	21.91	21.73	33.3	25.2	20.33

(*a*) Number of births per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1967.
NOTE. In some instances rates are based on too few births to warrant calculation to the second decimal place.

RATES OF BIRTHS, DEATHS AND NATURAL INCREASE: AUSTRALIA

1870 TO 1969



NOTE. EXCLUDES PARTICULARS OF FULL-BLOOD ABORIGINES BEFORE 1967

PLATE 19

The birth rates in the table above are based on *live births registered in the respective States and Territories*. Some confinements, however, take place in States other than the State in which the mother usually resides, particularly in areas near State borders. The variations thus caused in the birth rates for the States and Territories *by referring the birth registrations to the mother's usual residence* are shown by the following corrected rates for 1968—New South Wales, 18.66; Victoria, 21.08; Queensland, 20.23; South Australia, 18.79; Western Australia, 21.50; Tasmania, 21.80; Northern Territory, 33.01; and Australian Capital Territory, 23.04.

A graph showing the birth rate for each year from 1870 to 1969 is shown on page 165. The crude birth rates of Australia and the more populous countries of the world for the latest available year are shown in International Vital Statistics at the end of this chapter.

Masculinity of live births

The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The averages for the ten years 1951–60 were as follows: New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1967 to 1969.

MASCULINITY(*a*) OF LIVE BIRTHS REGISTERED: AUSTRALIA, 1901 TO 1969

	1901–10	*1911–20*	*1921–30*	*1931–40*	*1941–50*	*1951–60*	*1967*	*1968*	*1969*
Total births .	105.22	105.27	105.55	105.12	105.38	105.43	105.43	105.41	105.22
Ex-nuptial births .	104.08	105.25	105.16	105.36	105.34	103.99	106.16	104.21	

(*a*) Number of males born for every 100 female births. Excludes particulars of full-blood Aborigines before 1967.

Fertility rates

The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a high proportion of married women of child-bearing age will have a higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical. In order to compare fertilities, births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880–82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be fifteen to forty-four years inclusive, but births to mothers who were stated to be under fifteen or over forty-four years have been included in the compilations.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA, 1880-82 TO 1965-67(*a*)

	Average annual rates			*Index Nos (Base: 1880–82 = 100)*		
		Fertility rates			*Fertility rates*	
Period	*Crude birth rate(b)*	*Births per 1,000 women aged 15–44 years*	*Nuptial births per 1,000 married women aged 15–44 years*	*Crude birth rate(b)*	*Births per 1,000 women aged 15–44 years*	*Nuptial births per 1,000 married women aged 15–44 years*
1880–82 . .	35.3	170	321	*100*	*100*	*100*
1890–92 . .	34.5	159	332	98	94	103
1900–02 . .	27.2	117	235	77	69	73
1910–12 . .	27.2	117	236	77	69	74
1920–22 . .	25.0	107	197	71	63	61
1932–34 . .	16.7	71	131	47	42	41
1946–48 . .	23.6	104	160	67	61	50
1953–55 . .	22.7	109	149	64	64	46
1960–62 . .	22.5	112	154	64	66	48
1965–67 . .	19.5	95	132	55	56	41

(*a*) Excludes particulars of full-blood Aborigines before 1965–67. (*b*) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent over the period 1932–34 to 1946–48, the crude birth rate rose by 41 per cent owing principally to the greatly increased number of marriages during that period.

Age-specific birth rates

So long as customary ages at marriage do not change drastically the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably, and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific birth rates, that is the number of births to women of specified ages per thousand women of those particular ages.

Age-specific birth rates are more commonly expressed in age groups than in single ages. In the following table such rates are shown in five-year age groups for Australia for the period 1941 to 1968. A graph on the following page shows the age-specific birth rates for each year during the period 1921 to 1968.

AGE-SPECIFIC BIRTH RATES(*a*): AUSTRALIA, 1941 TO 1968

Age group (years)	*1941*	*1946*	*1951*	*1956*	*1961*	*1966*	*1967*	*1968*
15–19 . .	24.27	26.13	38.62	42.99	47.35	48.89	48.37	48.88
20–24 . .	121.02	151.07	177.23	210.87	225.81	173.07	170.76	173.64
25–29 . .	143.46	183.18	185.32	203.04	221.21	183.88	184.97	190.80
30–34 . .	104.94	131.72	123.10	123.52	131.11	105.12	102.77	103.30
35–39 . .	57.82	78.29	65.03	64.20	63.38	50.62	47.85	46.74
40–44 . .	19.61	24.57	21.02	19.74	19.17	14.16	13.49	12.89
45–49 . .	1.67	2.10	1.61	1.58	1.41	1.04	1.09	1.05

(*a*) Number of births per 1,000 of women in each age group. Excludes particulars of full-blood Aborigines before 1967.

Gross and net reproduction rates for females

A single measure of reproduction, known as the gross reproduction rate, is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on an average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility, page 169.

GROSS AND NET REPRODUCTION RATES(*a*): AUSTRALIA, 1881 TO 1968

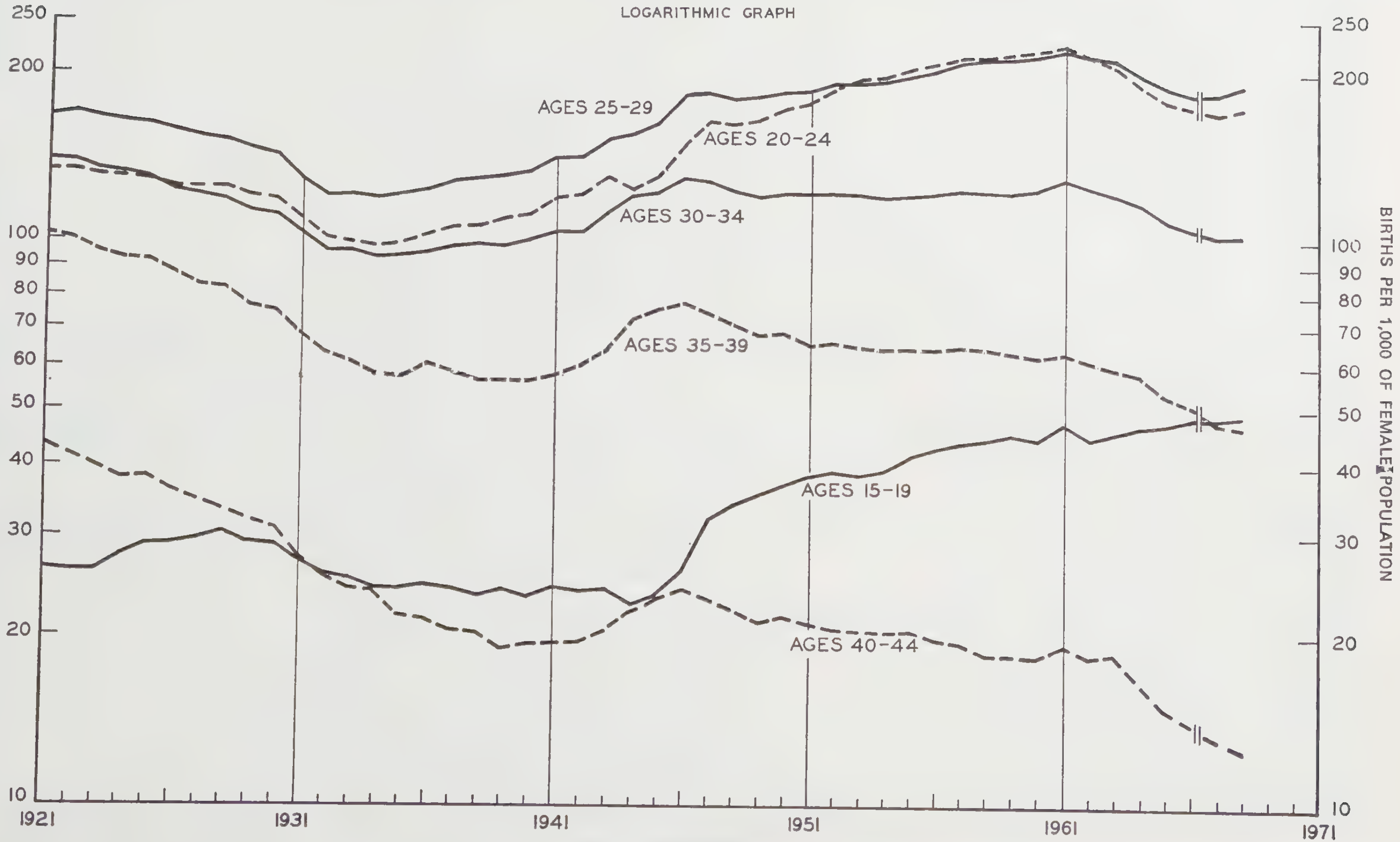
Year	*Gross reproduction rate*	*Net reproduction rate*	*Year*	*Gross reproduction rate*	*Net reproduction rate*
1881(*b*)	2.65	(*c*)1.88	1951.	1.486	(*h*)1.428
1891(*b*)	2.30	(*c*)1.73	1954.	1.559	(*i*)1.499
1901(*b*)	1.74	(*d*)1.39	1961.	1.728	(*j*)1.672
1911.	1.693	(*e*)1.395	1964.	1.529	(*j*)1.480
1921.	1.516	(*f*)1.317	1965.	1.447	(*j*)1.400
1931.	1.144	(*g*)1.043	1966.	1.400	(*j*)1.355
1941.	1.152	(*g*)1.092	1967.	1.387	(*j*)1.342
1947.	1.494	(*h*)1.416	1968.	1.406	(*j*)1.360

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Approximate only. (*c*) 1881–1890 mortality experience used. (*d*) 1891–1900 mortality experience used. (*e*) 1901–1910 mortality experience used. (*f*) 1920–1922 mortality experience used. (*g*) 1932–1934 mortality experience used. (*h*) 1946–1948 mortality experience used. (*i*) 1953–1955 mortality experience used. (*j*) 1960–1962 mortality experience used.

BIRTH RATES, BY AGE OF MOTHER: AUSTRALIA

1921 TO 1968

(NUMBER OF BIRTHS PER 1,000 OF FEMALE POPULATION IN EACH AGE GROUP)



Note. (1) The vertical scale is logarithmic, and the curves rise and fall according to the rate of increase and decrease; actual numbers are indicated by the scale.
(2) There is a break in continuity between 1966 and 1967.

PLATE 20

It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking into account previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

In the following table a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1968. These represent the latest available international comparisons. The registration of vital events has not been fully established in many countries and consequently details for the calculation of reproduction rates for those countries are not available. In order that the table should be as representative as possible some countries have been included even though the gross reproduction rate is the only figure available.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

Country	*Period*	*Reproduction rate*		*Country*	*Period*	*Reproduction rate*	
		Gross	*Net*			*Gross*	*Net*
Venezuela . . .	1963	3.04	2.69	Norway . . .	1965	1.41	1.37
Mauritius . . .	1966	2.70	2.34	France . . .	1966	1.35	1.32
Malaya . . .	1960	2.9	. .	**Australia . . .**	**1968**	**1.41**	**1.36**
Ceylon . . .	1961	2.5	. .	England and Wales .	1966	1.33	1.29
Thailand . . .	1954	2.26	1.70	Belgium . . .	1965	1.33	1.28
Chile	1964	2.16	1.83	Yugoslavia . .	1965	1.32	. .
Ireland, Republic of .	1966	1.86	1.81	Czechoslovakia . .	1964	1.22	1.17
New Zealand . .	1965	1.62	1.67	Germany—			
Canada . . .	1966	1.37	1.33	Federal Rep. . .	1965	1.22	1.17
United States of America . . .	1966	1.33	1.29	Democratic Rep. .	1965	1.22	1.16
Netherlands . .	1965	1.48	1.43	Sweden . . .	1966	1.15	1.13
Portugal . . .	1964	1.52	1.35	Switzerland . .	1965	1.23	1.19
Scotland . . .	1966	1.40	1.35	Japan . . .	1965	1.04	1.01
				Hungary . . .	1966	0.91	0.86

In comparing the reproduction rates of the countries shown allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

Fertility of marriages

More satisfactory estimates of the fertility of marriages may be made by relating nuptial births in each year to the marriages from which they could have resulted. Births to women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously and the resulting rates are added to give a total for all durations. The table below sets out this index of current fertility per marriage in respect of births in the individual years shown.

FERTILITY OF MARRIAGES(*a*): AUSTRALIA, 1957 TO 1968

Year	*Nuptial births per marriage*	*Year*	*Nuptial births per marriage*	*Year*	*Nuptial births per marriage*
1957 . . .	2.69	1961 . . .	2.84	1965 . . .	2.42
1958 . . .	2.69	1962 . . .	2.78	1966 . . .	2.32
1959 . . .	2.73	1963 . . .	2.72	1967 . . .	2.31
1960 . . .	2.76	1964 . . .	2.58	1968 . . .	2.09

(*a*) Excludes particulars of full-blood Aborigines before 1967. For 1967, births of full-blood Aborigines resulting from tribal marriages have also been excluded, as particulars of tribal marriages are not available.
See text at top of this page.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year.

Births are omitted from the calculation if the marriage did not take place in Australia. Births which occur overseas to Australian marriages cannot be included and hence some understatement is present. Furthermore the results do not take account of the previous reproductive history of a marriage or of age at marriage.

Ex-nuptial live births

The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1968 and for Australia at intervals from 1901 to 1968 are shown in the following tables.

EX-NUPTIAL LIVE BIRTHS
NUMBER AND PROPORTION, STATES AND TERRITORIES, 1968

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Number .	6,622	4,166	3,756	1,558	2,014	657	312	86	19,171
Proportion of total births % . .	8.11	5.93	10.67	7.35	10.31	7.90	14.97	3.25	7.96

EX-NUPTIAL LIVE BIRTHS: NUMBERS, PROPORTION AND RATES(*a*)
AUSTRALIA, 1901 TO 1968

	Annual average										
	1901–10	*1911–20*	*1921–30*	*1931–40*	*1941–50*	*1951–60*	*1964*	*1965*	*1966*	*1967*	*1968*
Number .	6,498	6,836	6,238	5,133	6,780	9,013	14,925	15,531	16,541	17,734	19,171
Rates(*b*) .	1.60	1.39	1.04	0.76	0.90	0.97	1.34	1.37	1.43	1.50	1.59
Proportion of total births % .	6.05	5.22	4.66	4.40	4.13	4.25	6.51	6.97	7.43	7.73	7.96

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Number of ex-nuptial births per 1,000 of mean population.

A further measure of ex-nuptiality is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows: 1880–82, 14.49; 1890–92, 15.93; 1900–02, 13.30; 1910–12, 12.53; 1920–22, 10.50; 1932–34, 6.91; 1946–48, 11.45; 1953–55, 14.45; 1960–62, 18.49; and 1965–67, 20.96. Particulars of full-blood Aborigines are excluded throughout. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown.

Legitimations

Under the provisions of the Commonwealth *Marriage Act* 1961–1966, which came into operation on 1 September 1963, a child whose parents were not married to each other at the time of its birth becomes legitimised on the subsequent marriage of its parents. The legitimation takes place whether or not there was a legal impediment to the marriage of the parents at the time of the child's birth and whether or not the child was still living at the time of the marriage, or in the case of a child born before 1 September 1963, at that date. Prior to the introduction of this Act, legitimations took place under Acts passed in the several States to legitimise children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who came within the scope of their purposes, born before or after the passing thereof, was deemed to be legitimate from birth by the post-natal union of its parents and entitled to the status of offspring born in wedlock. The number of children legitimised in Australia during 1968 was 3,167.

Multiple births

Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are stillborn the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live born are registered as single births.

Number of confinements

The following table shows the number of confinements resulting in one or more live births and the number of live births. The figures exclude cases where the births were of stillborn children only.

LIVE BIRTHS AND CONFINEMENTS: STATES AND TERRITORIES, 1968

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
LIVE BIRTHS									
Single births.	80,012	68,771	34,449	20,823	19,137	8,137	2,035	2,593	235,957
Twins . .	1,661	1,442	722	375	398	177	42	50	4,867
Triplets .	19	15	14	9	6	3	3	..	69
Quadruplets .	4	..	..	..	..	..	4	..	8
Quintuplets .	..	..	5	..	..	..	..	..	5
Males . .	41,897	36,145	17,876	10,949	10,070	4,288	1,050	1,352	123,627
Females .	39,799	34,083	17,314	10,258	9,471	4,029	1,034	1,291	117,279
Total .	**81,696**	**70,228**	**35,190**	**21,207**	**19,541**	**8,317**	**2,084**	**2,643**	**240,906**
STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE									
Twins . .	31	18	16	1	8	1	2	..	77
Triplets .	2	..	1	..	..	..	..	..	3
CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE									
Nuptial .	74,309	65,383	31,102	19,465	17,348	7,576	1,750	2,532	219,465
Ex-nuptial .	6,557	4,123	3,722	1,549	1,994	651	309	86	18,991
Total .	**80,866**	**69,506**	**34,824**	**21,014**	**19,342**	**8,227**	**2,059**	**2,618**	**238,456**

NOTE. Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy was liveborn, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. *See also* page 173.

Multiple births recorded on this basis during 1968 comprised 2,472 cases of twins, 24 cases of triplets, two cases of quadruplets and one case of quintuplets, the resulting number of live born and stillborn children respectively 4,867 and 77 for twins, 69 and 3 for triplets, 8 live born children for quadruplets and 5 liveborn children for quintuplets. This represents an average of 10.37 recorded cases of twins and 0.10 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 96 mothers and mothers of triplets 1 in every 9,936. Total cases of multiple births represented 10.47 per 1,000 confinements or 1 in every 95 mothers. The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

Confinements—ages of parents

The relative ages of the parents of children whose births were registered in 1968 have been tabulated separately for male and female births, multiple births being distinguished from single births. For confinements and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 85. In the following table the relative ages of parents are shown in five-year groups.

CONFINEMENTS, BY RELATIVE AGES OF PARENTS: AUSTRALIA, 1968

	Age of mother (years)									
Age of father (years)	*Under 15*	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45 and over*	*Not stated*	*Total*
Under 20	3	3,134	627	14	1	. .	. .	. .	. .	3,779
20–24	1	12,148	30,673	2,535	120	17	3	. .	1	45,498
25–29	4	2,289	35,798	33,192	2,670	219	33	1	3	74,209
30–34	1	424	7,980	25,378	15,131	1,458	118	3	4	50,497
35–39	. .	86	1,583	6,591	11,955	6,775	600	16	. .	27,606
40–44	. .	18	340	1,480	3,433	5,083	2,042	70	. .	12,466
45–49	2	10	93	301	671	1,384	1,172	139	. .	3,772
50–54	1	5	41	106	163	311	357	77	. .	1,061
55–59	. .	2	26	33	68	112	85	24	. .	350
60–64	. .	1	10	6	21	35	29	8	. .	110
65 and over(*a*)	. .	3	28	21	18	22	12	7	6	117
Total nuptial	*12*	*18,120*	*77,199*	*69,657*	*34,251*	*15,416*	*4,451*	*345*	*14*	*219,465*
Total ex-nuptial	*121*	*7,169*	*6,157*	*2,700*	*1,473*	*954*	*377*	*29*	*11*	*18,991*
Total	**133**	**25,289**	**83,356**	**72,357**	**35,724**	**16,370**	**4,828**	**374**	**25**	**238,456**

(*a*) Includes sixty-five confinements in which the age of the father was not stated.

Confinements—countries of birth of parents

The following table shows the countries of birth of parents of children whose births from nuptial confinements were registered during 1968.

NUPTIAL CONFINEMENTS, BY RELATIVE COUNTRIES OF BIRTH OF PARENTS AUSTRALIA, 1968

	Country of birth of mother											
Country of birth of father	*Australia*	*New Zealand*	*United Kingdom and Ireland*	*Germany*	*Greece*	*Italy*	*Malta*	*Netherlands*	*Yugoslavia*	*Other European*	*Other and unspecified*	*Total fathers*
Australia	145,787	657	6,821	1,073	116	378	288	1,084	82	659	1,188	158,133
New Zealand	718	322	96	11	1	3	. .	6	. .	7	23	1,187
United Kingdom and Ireland	8,294	130	8,109	146	6	28	56	137	11	149	332	17,398
Germany	1,504	24	248	947	12	23	23	73	31	139	81	3,105
Greece	375	. .	29	14	7,763	16	7	13	16	16	131	8,380
Italy	1,928	14	174	99	42	9,072	49	62	67	135	118	11,760
Malta	552	2	103	23	2	14	1,757	28	2	12	30	2,525
Netherlands	1,654	22	223	66	4	12	18	1,488	5	47	71	3,610
Yugoslavia	612	10	90	157	90	114	21	34	2,070	96	31	3,325
Other European	1,689	24	284	371	63	49	13	79	98	1,796	172	4,638
Other and unspecified	1,819	38	339	69	189	63	25	81	16	105	2,660	5,404
Total mothers	**164,932**	**1,243**	**16,516**	**2,976**	**8,288**	**9,772**	**2,257**	**3,085**	**2,398**	**3,161**	**4,837**	**219,465**

Confinements—age, duration of marriage and issue of mothers

The total number of nuptial confinements resulting in live births in 1968 was 219,465, comprising 217,155 single births, 2,287 cases of twins, 20 cases of triplets, two cases of quadruplets, and one case of quintuplets. The following tables relating to previous issue exclude the issue of former marriages and stillborn children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

The following table shows that in 1968 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1968 was 2.34, compared with 2.38 in 1967, 2.42 in 1966, 2.48 in 1965, and 2.56 in 1964.

NUPTIAL CONFINEMENTS BY DURATION OF MARRIAGE, AND AVERAGE ISSUE OF MOTHERS: AUSTRALIA, 1968

Duration of marriage	*Total nuptial confinements*	*Average issue of mother*	*Duration of marriage*	*Total nuptial confinements*	*Average issue of mother*
Under 1 year . .	32,299	1.03	15 years	2,055	5.05
1 year . . .	25,589	1.25	16 „	1,791	5.26
2 years . . .	28,091	1.59	17 „	1,409	5.50
3 „	25,622	1.89	18 „	1,096	5.78
4 „	20,879	2.19	19 „	843	6.07
5 „	16,849	2.52	20 „	617	6.22
6 „	13,328	2.82	21 „	458	6.24
7 „	11,051	3.11	22 „	305	6.83
8 „	8,853	3.38	23 „	177	7.20
9 „	7,048	3.62	24 „	112	7.22
10 „	5,622	3.84	25 years and over .	133	7.90
11 „	4,758	4.09	Not stated . . .	571	3.83
12 „	4,133	4.35			
13 „	3,243	4.55			
14 „	2,533	4.85	**Total** . .	**219,465**	**2.34**

A classification of mothers by age and previous issue is given for 1968 in the following table.

NUPTIAL CONFINEMENTS, BY AGE OF MOTHER AND PREVIOUS ISSUE AUSTRALIA, 1968

	Age of mother (years)							
Previous issue	*Under 20*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45 and over*	*Total married mothers*
0	14,732	40,980	18,820	4,700	1,622	445	(*a*)42	81,341
1	3,083	25,800	23,749	7,623	2,352	468	(*b*)25	63,100
2	291	7,974	16,440	9,017	3,016	646	(*c*)39	37,423
3	23	1,976	6,910	6,457	2,820	667	(*c*)45	18,898
4	3	382	2,456	3,266	2,057	639	39	8,842
5	. .	68	849	1,676	1,399	536	40	4,568
6	. .	17	285	816	832	330	(*c*)34	2,314
7	. .	1	103	367	563	247	(*c*)29	1,310
8	. .	1	33	174	306	183	20	717
9	. .	. .	10	97	218	108	21	454
10 and over . .	. .	. .	2	58	231	182	(*d*)25	(*e*)498
Total married mothers	**18,132**	**77,199**	**69,657**	**34,251**	**15,416**	**4,451**	**(*f*)359**	**219,465**

(*a*) Includes three confinements for which the age of mother was not stated. (*b*) Includes five confinements for which the age of mother was not stated. (*c*) Includes one confinement for which age of mother was not stated. (*d*) Includes two confinements for which age of mother was not stated. (*e*) Includes two confinements for which the previous issue was not stated. (*f*) Includes fourteen confinements for which the age of mother was not stated.

Multiple births—previous issue of mothers

Of married mothers of twins in 1968, 681 had no previous issue either living or dead, 651 had one child previously, 417 had two previous issue, 241 three, 123 four, 83 five, 28 six, 27 seven, 16 eight, 8 nine, 6 ten, 2 eleven, 2 twelve, and 2 thirteen. Of the 20 cases of nuptial triplets, two cases of quadruplets and one case of quintuplets registered during 1968, 4 mothers had no previous issue, 7 had one, 6 had two, 2 had three, 2 had four, 1 had five, and 1 had six previous issue.

Nuptial first births

The following table shows the number of nuptial first births classified by grouped ages of mothers and grouped durations of marriage of mothers.

NUPTIAL FIRST BIRTHS, BY AGE OF MOTHER AND DURATION OF MARRIAGE AUSTRALIA, 1968

Duration of marriage	*Age of mother (years)* Under 20	20–24	25–29	30–34	35–39	40–44	45 and over	Not stated	Total
Under 8 months	10,842	8,619	1,199	308	148	55	1	..	21,172
8 months	352	1,021	299	91	27	12	..	..	1,802
9 ,,	488	2,035	616	174	71	15	..	..	3,399
10 ,,	468	1,696	545	166	64	8	..	1	2,948
11 ,,	387	1,428	451	119	47	7	..	..	2,439
Total under 1 year	*12,537*	*14,799*	*3,110*	*858*	*357*	*97*	*1*	*1*	*31,760*
1 year and under 2 years	1,792	12,489	3,809	1,046	347	82	9	..	19,574
2 years ,, ,, 3 ,,	294	8,269	3,498	604	179	66	3	1	12,914
3 ,, ,, ,, 4 ,,	41	3,735	3,154	403	122	43	5	..	7,503
4 ,, ,, ,, 5 ,,	7	1,186	2,305	327	86	17	2	..	3,930
5 ,, ,, ,, 10 ,,	..	476	2,869	1,061	265	48	6	..	4,725
10 ,, ,, ,, 15 ,,	..	1	65	370	176	35	2	..	649
15 years and over	..	..	2	21	84	55	11	..	173
Not stated	61	25	8	10	6	2	..	1	113
Total	**14,732**	**40,980**	**18,820**	**4,700**	**1,622**	**445**	**39**	**3**	**81,341**

The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS(*a*) AUSTRALIA, 1911 TO 1968

Period	*Nuptial confinements* First births	Other births	Total	Proportion of first to total nuptial confinements (per cent)
Annual average—				
1911–20	33,595	88,997	122,592	27.40
1921–30	38,120	88,086	126,206	30.20
1931–40	39,243	71,136	110,379	35.55
1941–50	58,818	96,994	155,812	37.75
1951–60	64,379	136,264	200,643	32.09
Annual total—				
1964	68,586	143,437	212,023	32.35
1965	70,197	134,941	205,138	34.22
1966	73,462	130,499	203,961	36.02
1967	76,127	133,302	209,429	36.35
1968	81,341	138,124	219,465	37.06

(*a*) Excludes particulars of full-blood Aborigines before 1967.

Stillbirths

Interstate comparisons of the figures and rates in the following tables are affected by the differences in the definitions of stillbirths adopted by the various States, and only the trends in the rates for the States should be compared. For various reasons, the registration of stillbirths is not as complete as for live births and deaths; particulars for the Territories and the smaller States are more affected by this than are those for the larger States. Stillbirth registration was not compulsory in Tasmania until 1967. The figures shown in the tables represent those stillbirths voluntarily registered during the year.

STILLBIRTHS(*a*): STATES AND TERRITORIES, 1936 TO 1968

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Annual average—									
1936–40	1,409	854	n.a.	(*b*)274	234	144	n.a.	5	n.a.
1941–45	1,478	966	(*c*)657	324	248	143	n.a.	9	*cd*3,825
1946–50	1,405	949	626	368	274	161	n.a.	12	(*d*)3,795
1951–55	1,239	849	581	290	271	139	8	16	3,393
1956–60	1,253	839	558	274	235	109	6	19	3,293
1961–65	1,104	794	468	264	194	87	17	18	2,946
Annual total—									
1964	1,003	771	402	252	170	69	13	15	2,695
1965	947	747	391	256	181	89	15	23	2,649
1966	964	762	405	237	168	111	11	31	2,689
1967	863	797	372	211	188	83	(*e*)49	24	2,587
1968	806	734	365	217	183	79	(*f*)39	26	2,449

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Three years 1938–40. (*c*) Figures for Queensland are not available for 1941. (*d*) Excludes Northern Territory. (*e*) Includes 25 foetal deaths occurring in remote localities for which the period of gestation was not stated. The Registration Ordinance requires registration of any foetal death of at least twenty weeks gestation. (*f*) Includes 13 foetal deaths.

The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows.

PROPORTION OF STILLBIRTHS(*a*)(*b*): STATES AND TERRITORIES, 1936 TO 1968

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Average annual rate—									
1936–40	28.7	27.4	n.a.	(*c*)27.5	25.7	28.7	n.a.	22.2	n.a.
1941–45	25.5	24.8	(*d*)26.8	25.2	23.3	25.7	n.a.	22.9	*de*25.25
1946–50	20.0	19.6	21.9	22.1	20.5	22.3	n.a.	16.3	(*e*)20.46
1951–55	16.5	15.5	18.4	15.8	17.0	17.5	17.2	17.1	16.57
1956–60	15.5	13.5	16.1	13.5	13.7	12.6	8.6	14.3	14.59
1961–65	13.1	12.0	13.1	12.2	11.4	10.2	18.4	9.3	12.49
Annual rate—									
1964	12.3	11.7	11.4	11.9	10.1	8.3	(*f*)	(*f*)	11.62
1965	12.0	11.6	11.5	12.1	11.1	11.7	(*f*)	10.5	11.75
1966	12.2	11.8	12.2	11.5	9.8	14.8	(*f*)	13.2	11.93
1967	10.8	12.0	10.6	10.2	10.3	10.9	24.9	9.9	11.16
1968	9.8	10.3	10.3	10.1	9.3	9.4	18.4	9.7	10.11

(*a*) Numbers of stillbirths per 1,000 of all births (live and still). (*b*) Excludes particulars of full-blood Aborigines before 1967. (*c*) Three years 1938–40. (*d*) Figures for Queensland are not available for 1941. (*e*) Excludes Northern Territory. (*f*) Less than twenty events; rates not calculated.

NOTE. Because of the smallness of the numbers of stillbirths occurring in the Australian Capital Territory and the Northern Territory the rates for these Territories (i.e. the number per thousand live births and stillbirths) are subject to considerable fluctuation.

Mortality

Number of deaths

The following tables show the number of deaths, male and female, registered in each State and Territory during 1969. Stillbirths, although registered as both births and deaths in some States are excluded from the death statistics published herein.

DEATHS, SEXES: STATES AND TERRITORIES, 1969

Sex	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Males	22,607	15,860	9,184	5,207	4,313	1,876	295	344	59,686
Females	18,058	13,116	6,602	4,130	3,037	1,433	190	244	46,810
Persons	40,665	28,976	15,786	9,337	7,350	3,309	485	588	106,496

A summary of the number of deaths in each State and Territory from 1941 to 1969 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 597.

DEATHS(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Annual average—									
1941–45(*b*)	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946–50(*b*)	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951–55	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
1956–60	34,002	24,254	12,008	7,732	5,523	2,668	117	184	86,488
1961–65	37,514	26,569	13,570	8,388	6,043	2,939	152	290	95,465
Annual total—									
1965	38,949	28,031	14,114	8,788	6,274	3,043	161	355	99,715
1966	40,546	28,673	14,861	9,323	6,772	3,159	154	441	103,929
1967	39,613	28,373	14,736	9,071	6,779	3,228	527	376	102,703
1968	41,803	29,967	16,078	9,916	7,468	3,284	543	488	109,547
1969	40,665	28,976	15,786	9,337	7,350	3,309	485	588	106,496

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

Crude death rates

The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period.

CRUDE DEATH RATES(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Average annual rate—									
1941–45(*b*)	9.73	10.63	9.24	10.26	9.86	10.21	6.4	5.0	9.96
1946–50(*b*)	9.70	10.37	9.13	9.76	9.23	9.30	6.3	5.3	9.74
1951–55	9.49	9.55	8.71	9.25	8.49	8.48	6.9	4.58	9.25
1956–60	9.20	8.91	8.36	8.62	7.90	7.97	5.32	4.31	8.78
1961–65	9.27	8.73	8.63	8.28	7.78	8.15	4.95	3.94	8.75
Annual rate—									
1965	9.33	8.86	8.64	8.26	7.70	8.27	4.6	4.0	8.79
1966	9.57	8.90	8.93	8.54	8.09	8.50	4.1	4.6	8.99
1967	9.19	8.66	8.65	8.16	7.73	8.57	8.8	3.6	8.69
1968	9.53	9.01	9.27	8.81	8.21	8.59	8.4	4.3	9.10
1969—									
Males	10.05	9.33	10.25	9.05	8.95	9.57	6.0	5.4	9.63
Females	8.09	7.77	7.56	7.25	6.53	7.44	6.1	4.1	7.66
Persons	**9.08**	**8.55**	**8.92**	**8.15**	**7.76**	**8.51**	**7.1**	**4.8**	**8.65**

(*a*) Number of deaths per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1967. (*b*) Excludes deaths of defence personnel, etc., from September 1939 to June 1947.

NOTE. Crude death rates (i.e. the number of deaths per thousand of mean population) are affected by the particular age and sex composition of the population. In the Australian Capital Territory and the Northern Territory the population at risk in the higher ages is lower proportionately than in other States, largely as a result of the rapid increases of the population in the lower ages. In some instances rates are based on too few deaths to warrant calculation to the second decimal place.

A graph showing the crude death rate for each year from 1870 to 1969 will be found on page 165.

Standardised death rates

The death rates quoted on page 176 are crude rates, i.e. they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, 'standardised' death rates may be computed. For a description of the method used, and a table showing standardised death rates as compared with crude death rates as at Census dates from 1921 to 1966 *see* Year Book No. 55, page 184.

True death rates

The main objections to standardised death rates are that the choice of a standard population is arbitrary and that the standardised rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is fifty years, say, then each person will on the average die fifty years after birth, so that in a stationary population one person in fifty or twenty per thousand, will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out true death rates for the periods covered by Australian life tables together with estimates for recent years based on abridged life tables calculated by the Commonwealth Statistician. These estimates are subject to revision when the Australian life tables 1965–1967 become available.

TRUE DEATH RATES: AUSTRALIA
1881-90 TO 1967(*a*)

	True death rate	
Period	*Males*(*b*)	*Females*(*c*)
1881–90	21.19	19.67
1891–1900	19.58	18.26
1901–10	18.12	17.00
1920–22	16.91	15.80
1932–34	15.75	14.89
1946–48	15.14	14.16
1953–55	14.89	13.75
1960–62	14.72	13.48
1964(*d*)	14.84	13.55
1965(*d*)	14.77	13.48
1966(*d*)	14.80	13.51
1967(*d*)	14.76	13.43
1968(*d*)	14.83	13.50

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Number of deaths per 1,000 males in stationary population. (*c*) Number of deaths per 1,000 females in stationary population. (*d*) Based on abridged life tables calculated by the Commonwealth Statistician. These tables are based on estimates of population by age, adjusted to take into account the 1966 census.

The crude death rates and the true death rates of Australia and the more populous countries of the world for the latest available year are shown in the table in International Vital Statistics at the end of this chapter.

Australian Life Tables

Life Tables prior to 1961. It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881–90, 1891–1900 and 1901–10. These compilations furnished a comprehensive view of Australian mortality in respect of sex, time, and geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, mortality tables based on the experience for the whole of Australia for the ten years 1901–10 were prepared and published. At the census of 1921 Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933, 1947 and 1954, Life Tables based on the census population and the deaths in the years 1932 to 1934, 1946 to 1948 and 1953 to 1955 respectively were compiled by the Commonwealth Actuary.

Life Tables of census of 1961. On the occasion of the 1961 Census the eighth Life Tables in the series were compiled by the Commonwealth Actuary. These were based on the population recorded at the census, adjusted to allow for variation in the net movement into Australia over the years 1960 to 1962, and deaths during these years. Full particulars of the data used, the method of construction and the tabulation of these Life Tables will be found in the report of the Commonwealth Actuary, which was published by the Commonwealth Statistician in 1966. This report also appears in Volume VIII of the detailed tables of the 1961 census. The main features of the tables, including comparisons with earlier Australian tables, are set out in the Year Book No. 55, pages 186 and 187. The table most frequently used by the general reader is that relating to expectation of life, and is published below.

COMPLETE EXPECTATION OF LIFE ($\mathring{e}_x$) AT SELECTED AGES

	Males				*Females*			
Age (*x*)	*1901–10*	*1946–48*	*1953–55*	*1960–62*	*1901–10*	*1946–48*	*1953–55*	*1960–62*
0	55.20	66.07	67.14	67.92	58.84	70.63	72.75	74.18
10	53.53	59.04	59.53	59.93	56.38	63.11	64.78	65.92
20	44.74	49.64	50.10	50.40	47.52	53.47	55.06	56.16
30	36.52	40.40	40.90	41.12	39.33	44.08	45.43	46.49
40	28.56	31.23	31.65	31.84	31.47	34.91	35.99	36.99
50	21.16	22.67	22.92	23.13	23.69	26.14	27.03	27.92
60	14.35	15.36	15.47	15.60	16.20	18.11	18.78	19.51
70	8.67	9.55	9.59	9.77	9.96	11.14	11.62	12.19
80	4.96	5.36	5.47	5.57	5.73	6.02	6.30	6.68

NOTE. $\mathring{e}_x$ = complete expectation of life at specified ages.

The progress towards lower mortality rates for both males and females has continued over the past sixty years or more. For example, the probability of a child born in 1961 dying in one year is less than one-quarter of the probability of death in one year attached to the child who was born sixty years ago. Even at advanced ages, the reductions which have occurred in mortality rates as compared with sixty years ago are very substantial. With the exception of males of ages forty to forty-seven and ages sixty-two to sixty-six lower mortality rates were experienced by males and females during 1960 to 1962 than for the period 1953 to 1955.

There is evidence that female longevity continues to increase at a faster rate than male longevity. It would seem that the risks associated with child-bearing for females are out-weighed by the greater accident propensity of younger males and the more rapid deterioration of health of older males.

An improvement has occurred in male mortality from accidents of all types, although there is some indication that for females the accident rates have deteriorated slightly. The rates for females are, nevertheless, still substantially below the corresponding rates for males.

Age distribution at death

Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years, and thereafter the five-year groups 5–9 years, 10–14 years, etc. A summary in this form for the year 1968 is given for Australia in the following table.

DEATHS, BY AGE AT DEATH AND SEX: AUSTRALIA, 1968

Age at death	*Males*	*Fe-males*	*Per-sons*	*Age at death*	*Males*	*Fe-males*	*Per-sons*
Under 1 week	1,650	1,168	2,818	5– 9 years	290	216	506
1 week and under 2 weeks	89	57	146	10–14 ,,	291	142	433
2 weeks and under 3 weeks	31	39	70	15–19 ,,	797	293	1,090
3 weeks and under 4 weeks	33	39	72	20–24 ,,	909	277	1,186
				25–29 ,,	584	234	818
Total under 4 weeks	*1,803*	*1,303*	*3,106*	30–34 ,,	592	341	933
				35–39 ,,	907	544	1,451
4 weeks and under 3 months	240	168	408	40–44 ,,	1,512	892	2,404
3 months and under 6 months	220	174	394	45–49 ,,	2,267	1,322	3,589
6 months and under 12 months	189	186	375	50–54 ,,	3,397	1,831	5,228
				55–59 ,,	5,020	2,485	7,505
				60–64 ,,	6,565	3,209	9,774
Total under 1 year	*2,452*	*1,831*	*4,283*	65–69 ,,	7,464	4,404	11,868
				70–74 ,,	7,895	6,026	13,921
1 year	168	155	323	75–79 ,,	8,282	7,896	16,178
2 years	119	95	214	80–84 ,,	6,452	7,643	14,095
3 ,,	85	72	157	85 years and over	4,930	8,510	13,440
4 ,,	75	64	139	Age not stated	8	4	12
Total under 5 years	*2,899*	*2,217*	*5,116*	**Total all ages**	**61,061**	**48,486**	**109,547**

There are different mortality rates at various stages of life, and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups. The combined effect of various influences, i.e. the steady decline in the rate of mortality, the long term decline in the birth-rate, and the effects of past and present migration on the age distribution of the population, is shown in the following table, which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1960 and for the year 1968.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA, 1901 TO 1968(*a*)

(Per cent)

Age at death (years)	*1901–10*	*1911–20*	*1921–30*	*1931–40*	*1941–50*	*1951–60*	*1968*		
							Males	*Females*	*Persons*
Under 1 year	20.51	16.66	13.09	7.40	6.79	5.59	4.02	3.78	3.91
1– 4	6.45	6.09	4.51	2.56	1.71	1.33	0.73	0.80	0.76
5–14	3.71	3.47	3.00	2.29	1.34	1.04	0.95	0.74	0.86
15–24	6.22	5.10	4.33	3.61	2.09	1.71	2.79	1.18	2.08
25–34	7.31	7.40	5.92	4.49	2.87	2.30	1.93	1.19	1.60
35–44	8.39	8.02	7.72	6.25	4.52	4.00	3.96	2.96	3.52
45–54	9.29	10.34	9.99	10.34	9.15	8.29	9.28	6.50	8.05
55–64	9.74	12.12	14.82	15.11	16.67	15.81	18.97	11.74	15.77
65–74	13.39	13.51	17.85	22.53	23.09	25.47	25.15	21.51	23.54
75 and over	14.99	17.29	18.77	25.42	31.77	34.46	32.22	49.61	39.91
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

(*a*) Excludes particulars of full-blood Aborigines before 1967.

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Year Book No. 39, page 614.

Age-specific death rates

In previous issues of the Year Book, average annual age-specific death rates, i.e. the average number of deaths per 1,000 of population in each age group, were given for each State and Australia for the periods 1932–1934, 1946–1948, 1953–1955, 1960–1962, and 1965–1967 (*see* Year Books, No. 37, pp. 778–9, No. 39, pp. 615–6, No. 44, pp. 640–1, No. 52, p. 253, and No. 55, p. 189). These rates were based on the age distribution of the population at the relevant censuses.

Age-specific death rates for the year 1968 are shown in the following table.

AGE-SPECIFIC DEATH RATES(*a*): STATES, 1968

Age group (years)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
				MALES			
Under 1(*b*)	20.7	16.1	23.0	18.1	23.4	17.7	19.8
1–4	0.9	0.8	1.1	0.9	1.2	1.2	0.9
5–9	0.5	0.4	0.4	0.4	0.7	0.5	0.5
10–14	0.5	0.5	0.6	0.5	0.5	0.4	0.5
15–19	1.4	1.3	1.8	1.2	1.5	2.4	1.5
20–24	1.9	1.6	1.9	1.4	2.1	2.0	1.8
25–29	1.4	1.2	1.4	1.2	1.9	2.1	1.4
30–34	1.4	1.4	1.9	1.1	2.3	2.4	1.6
35–39	2.6	2.0	2.7	2.1	2.1	2.0	2.4
40–44	3.9	3.4	4.3	3.6	3.2	3.6	3.7
45–49	6.6	5.6	6.5	5.8	5.2	6.6	6.1
50–54	10.9	10.4	11.1	9.4	9.7	9.3	10.5
55–59	18.2	16.5	17.6	16.5	16.6	15.4	17.3
60–64	29.6	28.4	28.4	28.4	26.4	26.0	28.6
65–69	46.2	44.4	40.7	45.2	43.1	44.9	44.5
70–74	68.4	68.1	60.7	69.8	67.6	63.1	67.2
75–79	104.6	107.4	99.0	102.5	99.2	114.3	104.0
80–84	160.8	170.9	140.7	152.4	154.4	176.8	159.3
85 and over	274.2	281.1	253.8	268.3	286.0	284.4	272.4
				FEMALES			
Under 1(*b*)	16.5	12.6	17.6	14.3	17.1	16.6	15.6
1–4	0.8	0.7	1.0	0.8	1.1	1.1	0.9
5–9	0.4	0.3	0.4	0.3	0.3	0.2	0.4
10–14	0.3	0.2	0.3	0.1	0.2	0.2	0.3
15–19	0.6	0.5	0.8	0.5	0.6	0.5	0.6
20–24	0.5	0.6	0.6	0.6	0.7	0.8	0.6
25–29	0.7	0.6	0.6	0.5	0.4	0.7	0.6
30–34	1.1	0.7	1.1	0.7	1.2	1.0	1.0
35–39	1.6	1.3	1.8	1.5	1.1	1.2	1.5
40–44	2.5	2.1	2.7	2.1	2.1	2.0	2.4
45–49	3.9	3.5	4.3	2.8	3.6	3.0	3.7
50–54	6.2	5.4	6.6	4.3	4.5	4.5	5.7
55–59	9.6	8.0	8.1	8.4	8.5	9.1	8.7
60–64	13.9	14.4	13.0	13.0	12.7	13.7	13.8
65–69	22.8	22.5	20.8	23.1	21.6	22.5	22.4
70–74	37.8	35.9	34.1	34.7	38.1	36.9	36.5
75–79	66.5	63.0	63.0	61.8	64.0	63.6	64.5
80–84	113.0	111.4	97.6	99.4	100.7	114.9	108.4
85 and over	229.3	228.3	222.8	212.7	218.5	171.3	223.9

(*a*) Number of deaths per 1,000 of population in each age group at 30 June 1968. Includes particulars of Aborigines.
(*b*) Infant deaths per 1,000 live births registered.

AGE-SPECIFIC DEATH RATES(*a*): AUSTRALIA, 1910-12 TO 1968

Age group (years)	*1910–12 (b)*	*1920–22 (b)*	*1932–34 (b)*	*1946–48 (b)*	*1953–55 (b)*	*1960–62 (b)*	*1965–67 (b)(c)*	*1968(d)*
MALES								
Under 1(*e*)	79.2	70.1	46.0	31.7	25.2	22.4	20.3	19.8
1–4	7.4	7.1	4.1	2.0	1.7	1.2	1.0	0.9
5–9	2.3	2.0	1.5	0.9	0.7	0.5	0.4	0.5
10–14	1.7	1.6	1.2	0.8	0.6	0.5	0.5	0.5
15–19	2.5	2.3	1.8	1.4	1.5	1.2	1.3	1.5
20–24	3.6	3.1	2.4	1.7	1.8	1.6	1.7	1.8
25–29	4.4	3.7	2.5	1.7	1.7	1.5	1.5	1.4
30–34	5.2	4.2	2.9	2.0	1.8	1.7	1.6	1.6
35–39	6.7	5.4	3.9	2.7	2.4	2.3	2.4	2.4
40–44	8.5	6.9	5.2	4.1	3.6	3.7	3.8	3.7
45–49	11.6	9.8	7.8	6.9	6.0	6.0	6.1	6.1
50–54	15.2	13.1	11.5	11.3	10.4	10.0	10.4	10.6
55–59	21.9	18.9	17.5	17.7	16.9	16.6	16.9	17.3
60–64	31.0	28.7	26.4	27.4	26.6	26.4	27.5	28.6
65–69	46.9	42.9	40.2	42.5	41.3	41.7	43.5	44.5
70–74	71.1	64.6	61.2	63.4	64.6	63.0	66.7	67.2
75–79	113.4	105.8	98.5	100.0	98.2	94.6	99.6	104.0
80–84	172.5	162.7	158.2	148.9	145.9	142.4	145.7	159.3
85 and over	281.0	284.0	252.5	257.4	250.6	243.4	240.7	272.4
FEMALES								
Under 1(*e*)	63.7	54.5	36.7	25.0	19.9	17.6	15.8	15.6
1–4	6.8	6.2	3.5	1.7	1.4	1.0	0.8	0.9
5–9	2.1	1.8	1.2	0.6	0.5	0.4	0.3	0.4
10–14	1.6	1.3	0.9	0.5	0.4	0.3	0.3	0.3
15–19	2.2	1.9	1.4	0.7	0.6	0.5	0.5	0.6
20–24	3.5	2.8	2.1	1.1	0.7	0.6	0.6	0.6
25–29	4.3	3.6	2.6	1.5	0.8	0.7	0.7	0.6
30–34	4.7	4.1	2.9	1.8	1.1	1.0	1.0	1.0
35–39	6.0	5.0	3.8	2.4	1.7	1.5	1.5	1.5
40–44	6.4	5.5	4.3	3.3	2.6	2.3	2.3	2.4
45–49	8.0	6.8	6.1	4.9	4.2	3.7	3.8	3.7
50–54	10.9	9.3	8.6	7.6	6.4	5.5	5.8	5.7
55–59	15.0	12.8	11.5	10.5	9.2	8.1	8.6	8.7
60–64	21.4	19.1	18.0	16.5	14.8	13.3	13.5	13.8
65–69	35.7	31.2	29.3	26.2	23.9	22.1	21.8	22.4
70–74	56.5	50.3	46.9	45.7	40.8	37.0	37.2	36.5
75–79	95.3	86.9	77.0	75.3	69.5	63.1	62.4	64.5
80–84	147.4	139.6	126.8	123.0	117.1	105.5	107.7	108.4
85 and over	243.5	247.5	227.4	223.2	214.0	210.3	197.4	224.0

(*a*) Number of deaths per 1,000 of population of the same age group and sex. The populations used in the calculation of these rates are based on census populations at 3 April 1911, 4 April 1921 and 30 June 1933, 1947, 1954, 1961 and 1966, and the estimated population at 30 June 1968. (*b*) Average annual rate per 1,000 of census population, based on deaths in the three year period, i.e. census year and the years preceding and following it. Full-blood Aborigines are excluded. (*c*) For purposes of comparison with earlier periods for which full-blood Aborigines are excluded, and because published figures for 1965 and 1966 exclude Aborigines, the figures for the 1967 component have been adjusted to exclude full-blood Aborigines. (*d*) Includes Aborigines. (*e*) Infant deaths per 1,000 live births registered.

Infant deaths and death rates—States and Territories

The next table shows for each State and Territory for the period 1941 to 1969, the number of deaths under one year of age and the rates of infant mortality under one year. Rates for Australia and the more populous countries of the world for the latest available year are shown in the table International Vital Statistics at the end of this Chapter.

INFANT MORTALITY UNDER ONE YEAR(*a*): STATES AND TERRITORIES, 1941 TO 1969

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Annual average—									
1941–45	2,034	1,311	804	413	347	213	7	7	5,136
1946–50	1,990	1,129	770	431	370	187	11	14	4,902
1951–55	1,852	1,113	730	407	384	184	17	14	4,701
1956–60	1,770	1,205	717	410	362	176	25	18	4,683
1961–65	1,685	1,168	696	407	350	156	28	34	4,524
Annual total—									
1965	1,492	1,109	598	385	351	125	23	34	4,117
1966	1,490	1,116	581	356	329	108	19	46	4,045
1967	1,452	1,101	678	346	313	130	122	44	4,187
1968	1,525	1,010	716	345	398	143	101	45	4,283
1969	1,625	1,066	691	347	453	139	103	58	4,482
Annual average rate(*b*)—									
1941–45	35.9	34.5	34.3	32.9	33.3	39.3	61.7	18.7	34.97
1946–50	28.9	23.8	27.5	26.5	28.1	26.5	37.4	19.9	26.98
1951–55	25.1	20.7	23.6	22.6	24.4	23.7	36.3	15.4	23.34
1956–60	22.2	19.7	21.0	20.5	21.4	20.6	36.0	13.7	21.05
1961–65	20.3	17.9	19.7	19.0	20.8	18.5	31.2	17.6	19.42
Annual rate(*b*)—									
1965	19.1	17.5	17.8	18.4	21.7	16.6	25.2	15.8	18.47
1966	19.2	17.4	17.7	17.5	19.3	14.6	(*c*)	19.8	18.17
1967	18.4	16.8	19.5	17.0	17.4	17.2	63.5	18.3	18.26
1968	18.7	14.4	20.3	16.3	20.4	17.2	48.5	17.0	17.78
1969	18.9	15.0	18.9	15.8	21.8	16.5	48.3	18.8	17.92

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Number of deaths of children aged under one year per 1,000 live births registered. (*c*) Less than twenty events; rate not calculated.

Because of the smallness of the numbers of these deaths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e. number of such deaths per thousand live births) are subject to considerable fluctuation.

Infant deaths and death rates—Australia

The fact that out of 588,365 male infants born from 1964 to 1968, 12,066 (20.51 per 1,000) died during the first year of life, while of 556,466 female infants only 8,933 (16.05 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES(*a*): AUSTRALIA

	Age at death											*Total under one year*		
	Days		*Tota under one week*	*Weeks*			*Total under four weeks*	*Months*						
Period	*Under 1*	*1–6*		*1*	*2*	*3*		*1–2 (b)*	*3–5*	*6–8*	*9–11*	*Males*	*Fe-males*	*Per-sons*
Annual average—														
1941–45	1,580	1,269	2,849	332	189	132	3,502	497	460	375	302	2,921	2,215	5,136
1946–50	1,717	1,297	3,014	259	138	103	3,514	404	415	318	251	2,808	2,094	4,902
1951–55	1,631	1,250	2,881	237	109	86	3,313	396	431	316	245	2,683	2,018	4,701
1956–60	1,737	1,195	2,932	221	116	84	3,353	398	457	271	204	2,662	2,021	4,683
1961–65	1,709	1,187	2,896	191	102	71	3,260	426	417	245	176	2,596	1,928	4,524
Annual total—														
1965	1,544	1,067	2,611	164	103	69	2,947	372	389	244	165	2,357	1,760	4,117
1966	1,511	1,107	2,618	165	77	67	2,927	362	394	213	149	2,328	1,717	4,045
1967	1,572	1,144	2,716	169	91	77	3,053	385	390	215	144	2,421	1,766	4,187
1968	1,768	1,050	2,818	146	70	72	3,106	408	394	221	154	2,452	1,831	4,283
1969														
Annual average rate(*c*)—														
1941–45	10.75	8.64	19.39	2.27	1.29	0.90	23.85	3.38	3.13	2.55	2.06	38.80	30.93	34.97
1946–50	9.45	7.14	16.59	1.43	0.76	0.56	19.34	2.22	2.29	1.75	1.38	30.08	23.70	26.98
1951–55	8.09	6.20	14.29	1.18	0.54	0.43	16.44	1.97	2.14	1.57	1.22	25.99	20.56	23.34
1956–60	7.81	5.37	13.18	0.99	0.52	0.38	15.07	1.79	2.56	1.22	0.92	23.29	18.69	21.05
1961–65	7.34	5.09	12.43	0.82	0.44	0.30	13.99	1.83	1.79	1.05	0.76	21.67	17.03	19.42
Annual rate(*c*)—														
1965	6.93	4.79	11.72	0.73	0.46	0.31	13.22	1.67	1.75	1.09	0.74	20.59	16.24	18.47
1966	6.79	4.97	11.76	0.74	0.35	0.30	13.15	1.62	1.77	0.96	0.67	20.33	15.88	18.17
1967	6.85	4.99	11.84	0.74	0.40	0.33	13.31	1.68	1.70	0.94	0.63	20.57	15.82	18.26
1968	7.34	4.36	11.70	0.60	0.29	0.30	12.89	1.69	1.64	0.92	0.64	19.83	15.61	17.78
1969														

(*a*) Excludes particulars of full-blood Aborigines before 1967. (*b*) Age four weeks and under three months. (*c*) Number of deaths of children aged under one year per 1,000 live births registered.

Plate 21, on page 184 shows infant mortality rates for each year from 1910 to 1968.

Causes of death

The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death, and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), 1955 (Seventh) and 1965 (Eighth), were successively adopted for use in Australian statistics.

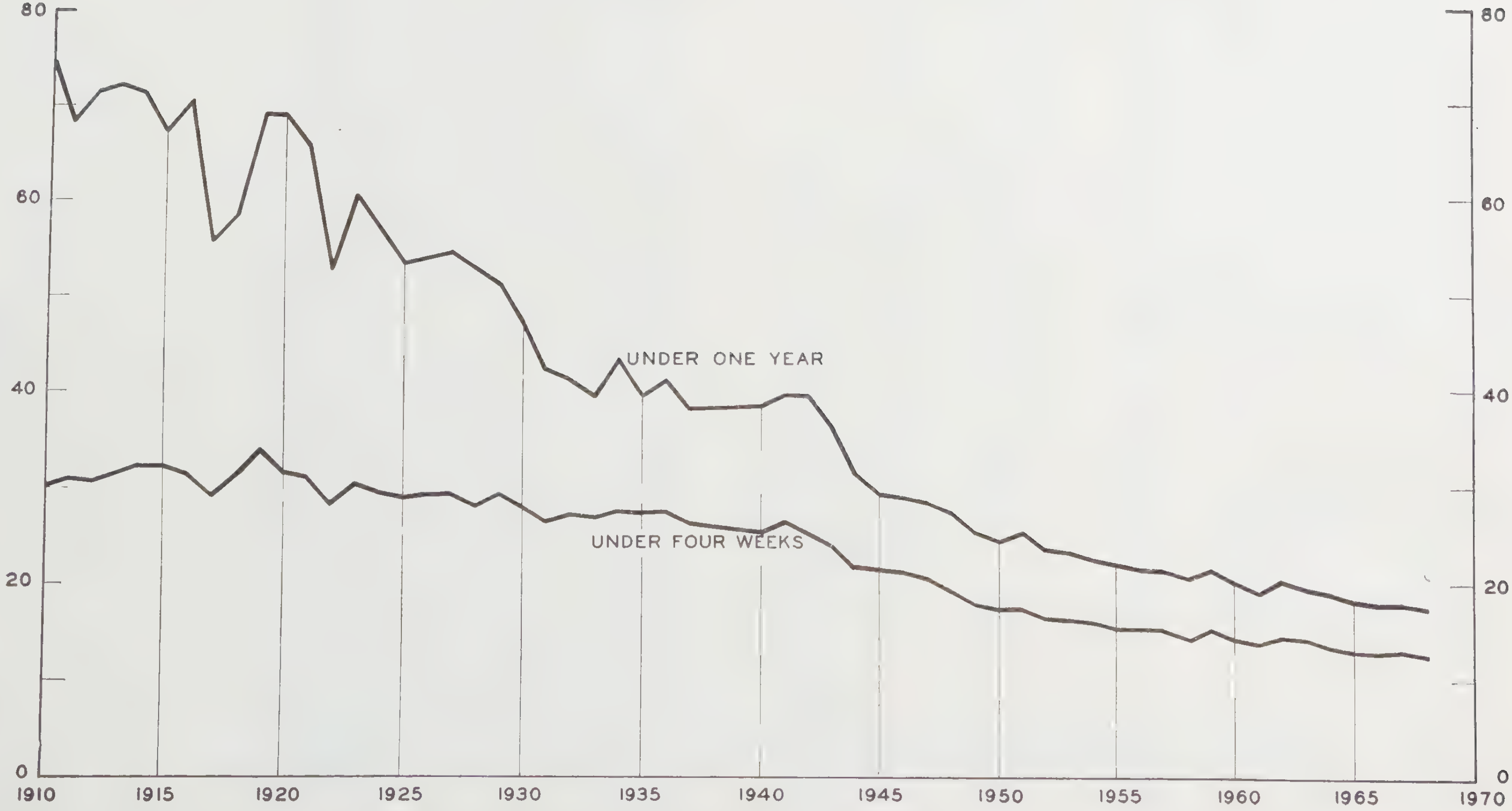
For 1968, the causes of death are classified according to the Eighth (1965) Revision of the International Classification of Diseases. This is the first year in which the Eighth Revision has been used in Australia and hence cause of death figures for 1968 and subsequent years will not be comparable, for some causes, with figures for 1967 and earlier years.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation—the Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations for 1968 which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Table A shows the total number of males and females who died, the death rates per million of mean population, and the percentage of total deaths. Table B shows deaths for males and females, classified by age groups.

INFANT MORTALITY RATES: AUSTRALIA

1910 TO 1968

(INFANT DEATHS PER 1,000 LIVE BIRTHS)



NOTE. EXCLUDES PARTICULARS OF FULL-BLOOD ABORIGINES BEFORE 1967

PLATE 21

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(*a*), MALES AND FEMALES, AUSTRALIA, 1968

Abbreviated List of 50 Causes With Certain Sub-Divisions

	Cause of death	*ICD numbers*	*Males*			*Females*		
			Number of deaths	*Percentage of total*	*Crude rates(a)*	*Number of deaths*	*Percentage of total*	*Crude rates(a)*
B 1	Cholera	000		..	..	..	..	..
B 2	Typhoid fever	001	..	..	..	1	(*b*)	(*c*)
B 3	Bacillary dysentery and amoebiasis	004, 006	6	(*b*)	1	9	(*b*)	2
B 4	Enteritis and other diarrhoeal diseases	008, 009	154	0.3	25	167	0.3	28
B 5	Tuberculosis of respiratory system	010–012	137	0.2	23	39	0.1	7
B 6	Other tuberculosis, including late effects	013–019	44	0.1	7	23	0.1	4
B 7	Plague	020	..	..	..	..	..	..
B 8	Diphtheria	032	..	..	..	..	..	..
B 9	Whooping cough	033	3	(*b*)	1	1	(*b*)	(*c*)
B10	Streptococcal sore throat and scarlet fever	034	..	..	..	2	(*b*)	(*c*)
B11	Meningococcal infection	036	13	(*b*)	2	10	(*b*)	2
B12	Acute poliomyelitis	040–043	..	..	..	..	..	..
B13	Smallpox	050	..	..	..	..	..	..
B14	Measles	055	6	(*b*)	1	9	(*b*)	2
B15	Typhus and other rickettsioses	080–083	1	(*b*)	(*c*)	..	..	..
B16	Malaria	084	..	..	..	..	..	..
B17	Syphilis and its sequelae	090–097	27	(*b*)	5	8	(*b*)	1
B18	All other infective and parasitic diseases	Remainder of 000–136	156	0.3	26	153	0.3	26
B19	Malignant neoplasms of—							
	Digestive organs	150-159	3,125	5.1	515	2,663	5.5	445
	Lung	162	2,516	4.1	415	377	0.8	63
	Skin	172, 173	282	0.5	47	177	0.4	30
	Breast	174	19	(*b*)	3	1,427	2.9	239
	Genital organs	180–187	1,015	1.7	167	1,124	2.3	188
	Urinary organs	188, 189	513	0.8	85	253	0.5	42
	Leukaemia and aleukaemia	204–207	399	0.7	66	315	0.7	53
	Other malignant and lymphatic neoplasms	Remainder of 140–209	1,693	2.8	279	1,220	2.5	204
B20	Benign neoplasms and neoplasms of unspecified nature	210–239	86	0.1	14	88	0.2	15
B21	Diabetes mellitus	250	856	1.4	141	1,099	2.3	184
B22	Avitaminoses and other nutritional deficiency	260–269	46	0.1	8	44	0.1	7
B23	Anaemias	280–285	111	0.2	18	170	0.4	28
B24	Meningitis	320	51	0.1	8	44	0.1	7
B25	Active rheumatic fever	390–392	12	(*b*)	2	9	(*b*)	2
B26	Chronic rheumatic heart disease	393–398	444	0.7	73	552	1.1	92
B27	Hypertensive disease	400–404	794	1.3	131	1,072	2.2	179
B28	Ischaemic heart disease	410–414	20,342	33.3	3,354	13,069	27.0	2,186
B29	Other forms of heart disease	420–429	2,238	3.7	369	2,801	5.8	469
B30	Cerebrovascular disease	430–438	6,653	10.9	1,097	8,711	18.0	1,457
B31	Influenza	470–474	152	0.3	25	171	0.4	29
B32	Pneumonia	480–486	1,573	2.6	259	1,379	2.8	231
B33	Bronchitis, emphysema and asthma	490–493	2,884	4.7	476	718	1.5	120
B34	Peptic ulcer	531–533	427	0.7	70	176	0.4	29
B35	Appendicitis	540–543	41	0.1	7	22	0.1	4
B36	Intestinal obstruction and hernia	550–553, 560	191	0.3	32	182	0.4	30
B37	Cirrhosis of liver	571	504	0.8	83	193	0.4	32
B38	Nephritis and nephrosis	580–584	450	0.7	74	372	0.8	62
B39	Hyperplasia of prostate	600	271	0.4	45	..	..	..
B40	Abortion	640–645	..	..	..	10	(*b*)	2
B41	Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	630–639, 650–678	..	..	..	58	0.1	10
B42	Congenital anomalies	740–759	633	1.0	104	577	1.2	97
B43	Birth injury, difficult labour and other anoxic and hypoxic conditions	764–768, 772, 776	488	0.8	81	317	0.7	53
B44	Other causes of perinatal mortality	Remainder of 760–779	894	1.5	147	659	1.4	110
B45	Symptoms and ill-defined conditions	780–796	269	0.4	44	386	0.8	65

For footnotes *see* end of table next page.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(*a*), MALES AND FEMALES, AUSTRALIA, 1968—*continued*

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS—*continued*

Cause of death		ICD numbers	Males: Number of deaths	Males: Percentage of total	Males: Crude rates(*a*)	Females: Number of deaths	Females: Percentage of total	Females: Crude rates(*a*)
B46	Arteriosclerosis . . .	440	1,131	1.9	187	1,443	3.0	241
	Other diseases of circulatory system	441–448, 450–458	944	1.6	156	715	1.5	120
	Other diseases of respiratory system	460–466, 500–508, 510–519	469	0.8	77	328	0.7	55
	All other diseases . .	Remainder of 240–738	2,237	3.7	369	2,472	5.1	414
BE47	Motor vehicle accidents . .	E810–E823	2,605	4.3	430	850	1.8	142
BE48	All other accidents . . .	E800–E807, E825–E949	1,889	3.1	312	1,155	2.4	193
BE49	Suicide and self-inflicted injuries	E950–E959	1,022	1.7	169	505	1.0	85
BE50	All other external causes . .	E960–E999	245	0.4	40	161	0.3	27
	All causes . . .		61,061	100.0	10,068	48,486	100.0	8,110

(*a*) Number of deaths per million of estimated mean population. (*b*) Less than 0.05. (*c*) Less than 0.5.

B CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA 1968

ABREVIATED LIST OF 50 CAUSES (BASED ON THE EIGHTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(*a*)		Sex	0	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 plus	Not stated	Total
			Number of deaths in age groups (*years*)											
B 2	Typhoid fever . . .	F	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1
B 3	Bacillary dysentery and amoebiasis	M	1	1	. .	. .	. .	. .	1	. .	3	. .	. .	6
		F	. .	4	. .	1	. .	. .	1	1	1	1	. .	9
B 4	Enteritis and other diarrhoeal diseases	M	53	36	2	. .	. .	2	6	6	20	29	. .	154
		F	46	33	7	2	1	5	5	7	16	45	. .	167
B 5	Tuberculosis of respiratory system	M	. .	. .	. .	. .	2	9	20	28	41	37	. .	137
		F	. .	1	. .	. .	2	3	1	6	9	17	. .	39
B 6	Other tuberculosis, including late effects	M	. .	3	. .	1	1	1	4	8	14	12	. .	44
		F	2	1	2	. .	. .	1	3	4	6	4	. .	23
B 9	Whooping cough. . .	M	2	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	3
		F	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	1
B10	Streptococcal sore throat and scarlet fever	F	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	2
B11	Meningococcal infection .	M	2	3	. .	2	. .	2	1	1	1	1	. .	13
		F	6	2	1	. .	. .	. .	. .	1	. .	. .	. .	10
B14	Measles	M	3	1	1	. .	. .	1	. .	. .	. .	. .	. .	6
		F	. .	5	2	. .	. .	. .	. .	. .	. .	2	. .	9
B15	Typhus and other rickettsioses	M	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	1
B17	Syphilis and its sequelae .	M	1	. .	. .	. .	. .	. .	3	6	9	8	. .	27
		F	2	. .	. .	. .	. .	. .	2	1	2	1	. .	8
B18	All other infective and parasitic diseases	M	40	15	12	8	6	8	18	13	18	18	. .	156
		F	33	5	11	6	9	16	7	15	20	31	. .	153
B19	Malignant neoplasms of:													
	Digestive organs . .	M	. .	. .	2	6	21	108	306	715	980	987	. .	3,125
		F	. .	. .	1	3	27	81	238	450	761	1,102	. .	2,663
	Lung	M	. .	. .	. .	2	5	65	288	809	911	436	. .	2,516
		F	. .	. .	. .	. .	1	17	64	107	94	94	. .	377
	Skin	M	. .	. .	. .	5	12	25	52	73	64	51	. .	282
		F	. .	. .	. .	2	16	23	26	25	29	56	. .	177
	Breast	M	. .	. .	. .	. .	. .	. .	5	2	9	3	. .	19
		F	. .	. .	. .	1	23	106	315	334	292	356	. .	1,427
	Genital organs . .	M	. .	1	. .	10	18	8	19	85	291	583	. .	1,015
		F	. .	1	. .	5	23	85	239	283	247	241	. .	1,124
	Urinary organs . .	M	1	4	2	1	5	5	44	128	170	153	. .	513
		F	1	4	2	. .	1	5	24	48	65	103	. .	253
	Leukaemia and aleukaemia	M	1	20	48	27	19	17	39	60	95	73	. .	399
		F	1	11	29	13	9	24	36	36	78	78	. .	315
	Other malignant and lymphatic neoplasms	M	2	25	50	40	43	116	278	455	387	297	. .	1,693
		F	2	25	31	33	34	62	155	279	258	341	. .	1,220
B20	Benign neoplasms and neoplasms of unspecified nature	M	4	1	4	1	1	8	12	22	21	12	. .	86
		F	. .	2	2	2	7	8	11	12	24	20	. .	88
B21	Diabetes mellitus. . .	M	1	. .	6	3	12	31	71	138	281	313	. .	856
		F	. .	1	1	4	2	21	34	137	357	542	. .	1,099
B22	Avitaminoses and other nutritional deficiency	M	7	4	1	1	. .	2	1	8	10	12	. .	46
		F	4	3	1	. .	. .	3	. .	2	8	23	. .	44

For footnote *see* end of table next page.

B. CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA 1968—*continued*

ABREVIATED LIST OF 50 CAUSES (BASED ON THE EIGHTH REVISION OF THE INTERNATIONAL LIST)—*continued*

Cause of death(a)		*Sex*	*Number of deaths in age groups (years)*											
			0	*1–4*	*5–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*75 plus*	*Not stated*	*Total*
B23	Anaemias	M	3	..	3	3	..	4	8	11	24	55	..	111
		F	..	2	7	4	4	3	2	14	33	101	..	170
B24	Meningitis	M	23	6	3	1	..	3	5	4	3	3	..	51
		F	19	5	4	..	..	2	..	7	1	6	..	44
B25	Active rheumatic fever	M	..	1	1	3	..	3	1	1	1	1	..	12
		F	..	1	2	..	..	..	1	1	3	1	..	9
B26	Chronic rheumatic heart disease	M	..	..	1	12	17	48	61	120	101	84	..	444
		F	..	..	6	6	10	36	84	122	131	157	..	552
B27	Hypertensive disease	M	..	..	..	..	5	38	70	154	219	307	1	794
		F	..	..	..	..	6	32	50	98	238	648	..	1,072
B28	Ischaemic heart disease	M	..	..	..	8	40	547	2,159	4,971	6,129	6,487	1	20,342
		F	..	..	..	..	19	119	504	1,641	3,641	7,145	..	13,069
B29	Other forms of heart disease	M	10	6	4	16	12	41	91	242	491	1,325	..	2,238
		F	4	4	10	11	13	41	56	145	433	2,084	..	2,801
B30	Cerebrovascular disease	M	3	2	8	15	37	138	402	1,002	1,834	3,212	..	6,653
		F	4	2	5	14	31	130	378	765	1,909	5,473	..	8,711
B31	Influenza	M	5	4	..	2	3	4	4	11	35	84	..	152
		F	3	2	2	3	5	4	6	6	28	112	..	171
B32	Pneumonia	M	208	25	14	10	11	43	97	152	282	731	..	1,573
		F	152	30	14	13	11	33	52	72	135	867	..	1,379
B33	Bronchitis, emphysema and asthma	M	4	8	14	22	20	48	155	542	941	1,130	..	2,884
		F	4	5	11	8	7	38	62	130	174	279	..	718
B34	Peptic ulcer	M	1	1	..	3	4	17	50	86	121	144	..	427
		F	..	..	..	..	2	8	16	24	40	86	..	176
B35	Appendicitis	M	..	1	3	2	3	..	4	10	7	11	..	41
		F	..	1	2	2	2	..	3	2	2	8	..	22
B36	Intestinal obstruction and hernia	M	32	2	..	3	1	5	7	30	34	77	..	191
		F	11	1	2	4	1	3	13	14	31	102	..	182
B37	Cirrhosis of liver	M	..	3	2	..	12	58	153	141	93	42	..	504
		F	4	2	..	4	4	24	47	54	36	18	..	193
B38	Nephritis and nephrosis	M	..	2	2	12	16	37	60	85	113	123	..	450
		F	2	1	3	2	11	42	51	82	83	95	..	372
B39	Hyperplasia of prostate	M	..	..	..	..	..	..	2	10	50	209	..	271
B40	Abortion	F	..	..	..	5	4	1	..	..	..	..	..	10
B41	Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	F	..	..	..	25	19	13	1	..	..	..	..	58
B42	Congenital anomalies	M	428	47	44	35	17	11	18	16	11	6	..	633
		F	388	49	46	16	12	13	11	19	12	11	..	577
B43	Birth injury, difficult labour and other anoxic and hypoxic conditions	M	488	..	..	..	..	..	..	..	..	..	..	488
		F	317	..	..	..	..	..	..	..	..	..	..	317
B44	Other causes of perinatal mortality	M	893	..	..	..	1	..	..	..	..	..	..	894
		F	658	1	..	..	..	..	..	..	..	..	..	659
B45	Symptoms and ill-defined conditions	M	32	2	2	5	13	11	20	19	37	127	1	269
		F	18	4	.	4	3	19	13	14	56	253	2	386
B46	Arteriosclerosis	M	..	..	..	..	1	2	11	57	184	876	..	1,131
		F	..	..	..	..	..	2	4	19	150	1,268	..	1,443
	Other diseases of circulatory system	M	2	..	1	6	5	17	52	180	338	343	..	944
		F	..	..	..	4	8	18	28	81	168	408	..	715
	Other diseases of respiratory system	M	61	16	7	10	4	16	37	60	97	161	..	469
		F	46	13	3	4	7	9	24	30	59	133	..	328
	All other diseases	M	51	33	45	84	51	140	291	430	459	651	2	2,237
		F	43	37	40	58	55	140	281	333	500	984	1	2,472
BE47	Motor vehicle accidents	M	7	60	141	945	372	295	271	243	159	112	..	2,605
		F	3	48	62	216	71	85	88	89	108	79	1	850
BE48	All other accidents	M	80	109	149	267	198	213	231	213	157	272	..	1,889
		F	48	72	43	32	16	25	61	72	139	647	..	1,155
BE49	Suicide and self-inflicted injuries	M	..	..	7	112	148	215	196	195	92	55	2	1,022
		F	..	..	..	40	80	102	128	91	44	20	..	505
BE50	All other external causes	M	3	4	2	23	40	56	40	43	22	11	1	245
		F	10	7	6	23	18	33	28	20	9	7	..	161
	All Causes	M	2,452	447	581	1,706	1,176	2,419	5,664	11,585	15,359	19,664	8	61,061
		F	1,831	386	358	570	575	1,436	3,153	5,694	10,430	24,049	4	48,486

(*a*) In 1968, there were no male deaths recorded in the following categories: B1, Cholera (000); B2, Typhoid fever (001); B7, Plague (020); B8, Diphtheria (032); B10, Streptococcal sore throat and scarlet fever (034); B12, Acute poliomyelitis (040–043); B13, Smallpox (050); B16; Malaria (084). No female deaths were recorded in the following categories: B1; B7; B8; B12; B13; B15, Typhus and other rickettsioses (080–083); B16.

Causes of death—children under one year

Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies. A summary for 1968 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH: AUSTRALIA, 1968

International Classification of Diseases number	Cause of death	Age at death										
		Days		Total under one week	Weeks			Total under four weeks	Months			Total under one year
		Under 1	1–6		1	2	3		1–2 (a)	3–5	6–11	
760	Chronic circulatory and genito-urinary diseases in mother	18	12	30	..	..	..	30	..	..	..	30
761	Other maternal conditions unrelated to pregnancy	69	28	97	2	..	..	99	1	1	1	102
762	Toxaemias of pregnancy	59	54	113	2	2	..	117	..	..	..	117
763	Maternal ante-and intrapartum infection	21	5	26	1	..	..	27	..	..	..	27
764–768	Difficult labour	97	72	169	3	1	..	173	1	..	..	174
769	Other complications of pregnancy and childbirth	313	123	436	10	3	2	451	..	..	..	451
770	Conditions of placenta	177	84	261	7	2	..	270	..	..	..	270
771	Conditions of umbilical cord	17	8	25	..	..	..	25	..	..	..	25
772, 773	Birth injury without mention of cause	35	37	72	5	2	1	80	3	1	1	85
774, 775	Haemolytic disease of newborn	68	32	100	..	..	1	101	1	..	2	104
776	Anoxic and hypoxic conditions not elsewhere classified	304	227	531	9	4	..	544	6	1	..	551
777	Immaturity unqualified	280	71	351	5	..	..	356	1	..	..	357
778, 779	Other conditions of newborn	22	33	55	5	2	..	62	1	..	..	63
740–759	Congenital anomalies	227	190	417	49	31	35	532	113	92	79	816
000–136	Infections	5	9	14	16	6	9	45	37	43	66	191
480–486	Pneumonia	13	27	40	16	9	11	76	113	100	71	360
(b)	Other diseases	37	36	73	11	7	11	102	94	107	106	409
E911–E913	Inhalation or ingestion of food or other object causing obstruction or suffocation, and accidental mechanical suffocation	..	1	1	4	..	1	6	30	36	16	88
(c)	Other external causes	6	1	7	1	1	1	10	7	13	33	63
	All Causes	1,768	1,050	2,818	146	70	72	3,106	408	394	375	4,283

(a) Age four weeks and under 3 months. (b) 140–474, 490–738, 780–796. (c) E800–E910, E914–E999

Deaths from certain important causes

In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Eighth Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A and B (pages 185 and 187) are indicated in parentheses for each cause or group of causes.

All forms of tuberculosis (*B5*, *B6*). The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 49 per 100,000 of mean population in 1931 to 18 in 1951, and to 2 in 1968. The reductions in the younger age groups are much greater. In making these comparisons, consideration of the effect of the change in basis from the Fifth to the Sixth Revision of the International List is particularly important.

Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (*B19*). Deaths classified under this heading according to the Sixth, Seventh and Eighth Revisions of the International List (used in Australia for deaths registered since 1950) are not directly comparable in total with those on the Fifth Revision basis (*see* Year Book No. 39, p. 628).

The most common sites of malignant neoplasms causing death in 1968 were as follows: digestive organs (males, 3,125; females, 2,663); lung (males, 2,516; females, 377); genital organs (males, 1,015; females, 1,124); breast (males, 19; females, 1,427); urinary organs (males, 513; females, 253); leukaemia and aleukaemia (males, 399; females, 315).

The ages of males and females who died from malignant neoplasms in 1968 are given below, together with figures for 1931, 1941, 1951 and 1961. The increase in the number of deaths from malignant neoplasms in the years since 1931 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 84 per cent between 1931 and 1968, the number of people aged 55 years and over increased by about 134 per cent. The increase in the number of deaths in the lower age groups from 1951 is due partly to the inclusion of neoplasms of lymphatic and haematopoietic tissues, and it is probable also that part of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

DEATHS FROM MALIGNANT NEOPLASMS(*a*), BY AGE GROUP AND SEX AUSTRALIA, 1931 TO 1968(*b*)

	Males					*Females*				
Age group (years)	*1931*	*1941*	*1951(a)*	*1961(a)*	*1968(a)*	*1931*	*1941*	*1951(a)*	*1961(a)*	*1968(a)*
Under 15	25	21	91	130	156	23	25	71	114	108
15–29	43	49	103	109	144	38	45	76	84	96
30–44	196	176	275	380	414	326	344	387	481	498
45–54	410	465	584	823	1,031	548	685	692	847	1,097
55–64	868	983	1,334	1,699	2,327	744	926	1,180	1,207	1,562
65 and over	1,942	2,561	3,128	4,239	5,490	1,426	2,198	2,698	3,575	4,195
Not stated	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Total	**3,484**	**4,255**	**5,515**	**7,380**	**9,562**	**3,105**	**4,223**	**5,104**	**6,309**	**7,556**

(*a*) Includes neoplasms of lymphatic and haematopoietic tissues. (*b*) Excludes particulars of full-blood Aborigines prior to 1967.

The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent they reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (*see* previous paragraph). In 1931 the rate for Australia was 101 (males, 105; females, 97); in 1941 it was 119 (males, 119; females, 120); and in 1951 it had risen to 126 (males, 130; females, 122). Figures for 1961 gave a rate of 130 (males, 139; females, 121), and for 1968 a rate of 142 (males, 158; females, 126).

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows: Brazil, 94; Israel, 110; Japan, 113; Poland, 129; Canada and South Africa (white population), 137; Australia, 142; United States of America, 157; Italy, 168; Netherlands, 190; France, 204; England and Wales, 228; Scotland, 234. The rates are for the latest available year in each case.

Maternal causes (*B40, B41*). It was shown in Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from maternal causes. The Seventh Revision, introduced in 1958, and the Eighth Revision in 1968, did not affect comparability. The death rate from these causes has fallen rapidly during recent years and in 1968 the rate of 0.3 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 68 deaths in 1968 are equivalent to a death rate of 1.14 per 100,000 females. The death rate may be expressed in other terms by stating that for every 3,543 babies born alive in 1968 one woman died from maternal causes. The death rate per 1,000 live births from maternal causes in various countries for the latest available year is as follows: Sweden, 0.1; Denmark, Canada, United Kingdom and New Zealand, 0.2; Australia, Netherlands, Norway, France, Finland and United States of America, 0.3; Switzerland, 0.4; Italy and Japan, 0.7.

Causes of infant mortality. See paragraphs devoted to causes of infant deaths on pages 187–8.

Diseases of the circulatory system (*B25–B30, part B46*).

This class is the largest among causes of death, representing 56 per cent of total deaths in 1968. The following table shows the number of deaths and death rates per 100,000 of mean population from diseases of the circulatory system for the years 1950–68. Comparability of the figures is not affected by the various revisions of the International Classification of Diseases.

DEATHS AND DEATH RATES(*a*) FROM DISEASES OF THE CIRCULATORY SYSTEM BY SEX, AUSTRALIA, 1950 TO 1968

	Cerebrovascular disease				*Heart disease*				*Other diseases of circulatory system*				*Total*			
	Number		*Rate(a)*		*Number*		*Rate(a)*		*Number*		*Rate(a)*		*Number*		*Rate(a)*	
Year	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*
1950	4,035	5,351	98	132	14,687	10,256	356	253	1,736	1,802	42	44	20,458	17,409	499	429
1955	4,811	6,224	103	137	16,382	11,303	352	249	1,843	1,886	40	42	23,036	19,413	495	427
1960	5,183	6,659	100	131	18,654	13,173	359	259	2,068	1,970	40	39	25,905	21,802	499	429
1965	5,809	7,835	101	139	21,843	15,546	381	275	2,029	2,071	35	37	29,681	25,452	517	450
1968	6,653	8,711	110	146	23,520	17,193	388	288	2,385	2,468	39	41	32,558	28,372	537	475

(*a*) Per 100,000 of mean population.

Accidents, poisonings and violence (*BE47 to BE50*). Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; injuries undetermined whether accidentally or purposely inflicted; and injury resulting from operations of war, including delayed effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is between two and three times as great for males as for females. The low level of the rates and proportions for the years 1941–45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide, though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July 1947 deaths of defence personnel from accidents, etc. have again been included.

ACCIDENTS, POISONINGS, AND VIOLENCE: DEATH RATES(*a*), BY SEX
AUSTRALIA, 1936 TO 1968(*b*)

	Death rate from—										*All violence, proportion per 10,000 deaths*	
	Motor vehicle accidents		*Suicide*		*Homicide(c)*		*Other violence(d)*		*Total violence*			
Period	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
1936–40 .	32	8	17	5	2	1	55	20	105	34	980	399
1941–45 .	19	5	11	5	1	1	48	21	79	31	730	348
1946–50 .	30	6	14	5	1	1	46	21	91	33	844	383
1951–55 .	38	9	15	5	2	1	44	22	99	37	964	453
1956–60 .	37	11	17	6	2	1	38	20	93	39	957	495
1961–65 .	38	13	19	9	2	1	34	19	93	42	954	550
1966 . .	41	15	17	11	2	1	32	19	92	46	933	572
1967 . .	42	15	19	11	2	1	35	20	97	47	1,008	611
1968 . .	43	14	17	8	2	1	33	20	95	45	943	551

(*a*) Number of deaths per 100,000 of mean population. (*b*) Excludes particulars of full-blood Aborigines before 1967. (*c*) Includes deaths from injury purposely inflicted by other persons (not in war) and legal intervention. (*d*) Includes deaths from injury undetermined whether accidentally or purposely inflicted.

In 1968 the total number of deaths from *accidental causes* (*BE47, BE48*) was 6,499 (4,494 males and 2,005 females). Over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows: Motor vehicle traffic accidents, 3,377 (51.96 per cent); motor vehicle non-traffic accidents, 78 (1.20 per cent); other road vehicle accidents, 46 (0.71 per cent); railway accidents, 87 (1.34 per cent); water transport accidents, 90 (1.38 per cent); aircraft accidents, 41 (0.63 per cent); a total of 3,719 (57.22 per cent). Other important causes were accidental falls, 1,186 (18.25 per cent); accidental drowning, 382 (5.88 per cent); accidents caused by fires and flames, 232 (3.57 per cent); and accidental poisonings, 153 (2.35 per cent).

Deaths from *suicide* (*BE49*) in 1968 numbered 1,527 (males, 1,022; females, 505). Poisoning, other than by gases, was used in 626 cases (41.00 percent of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows: firearms and explosives, 353 (23.12 per cent); poisoning by gases, 229 (15.00 per cent); hanging or strangulation, 153 (10.02 per cent); submersion (drowning), 80 (5.24 per cent); other and unspecified modes, 86 (15.63 per cent). Of the 1,022 males who committed suicide, 329 (32.19 per cent) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 325 cases (64.36 per cent).

Of the 406 deaths recorded in 1968 to all other external causes (*BE50*), there were 190 deaths from homicide and injury purposely inflicted by other persons, 1 death from legal execution, 212 deaths from injury undetermined whether accidentally or purposely inflicted (of which 100 were due to poisoning other than by gases) and 3 deaths from late effects of injury due to operations of war.

Vital statistics of External Territories

The following table shows, for the year 1968, the number of marriages, births and deaths registered in the External Territories under the control of Australia. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 86.

EXTERNAL TERRITORIES: VITAL STATISTICS, 1968

Territory	*Marriages*	*Births*	*Deaths*
Christmas Island(*a*)	3	26	14
Cocos (Keeling) Islands(*a*)	. .	2	. .
Norfolk Island(*a*)	10	27	12
Territory of Papua and New Guinea(*b*)	294	1,108	111

(*a*) Total population. (*b*) Non-indigenous population only.

International vital statistics

In the following table vital statistics rates for certain countries are shown. Crude marriage, birth, and death rates represent the number of 'events' reported for the year stated per 1,000 of the population. Infant mortality rates are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nations *Demographic Yearbook*, 1968 (*see* explanation of true death rates, page 177).

In many instances the rates shown in the following table are estimates and the results of sample surveys only. Reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1968 (*see* particularly Technical Notes on Statistical Tables and footnotes to the tables). The countries are arranged in the same order as in the table on pages 157–58 of the Population chapter.

VITAL STATISTICS RATES: CERTAIN COUNTRIES—LATEST AVAILABLE YEAR

(*Source:* United Nations *Demographic Yearbook, 1968*)

		Rates(a)					*True death rates(b)*	
Country	*Year*	*Marriage*	*Birth*	*Death*	*Infant mortality*	*Year*	*Male*	*Female*
Africa—								
United Arab Republic	1968	8.7	38.2	16.2	(*c*)83.2	1960	19.4	18.6
South Africa—								
Asian population	1966	8.3	31.9	7.3	(*d*)50.8	1959–61	17.3	16.8
Coloured population	1966	6.1	43.6	14.9	(*d*)128.8	1959–61	20.2	18.4
White population	1966	10.0	(*c*)22.9	(*c*)9.0	(*d*)24.6	1959–61	15.4	14.0
Morocco(*e*)	1962	n.a.	46.1	18.7	149	1962	21.3	
Upper Volta(*e*)	1960–61	n.a.	53	35	182	1960–61	31.2	32.2
Southern Rhodesia (*d*)(*e*)	1962	n.a.	48.1	14.0	(*f*)122	1962	20.0	
Ivory Coast(*d*)(*e*)	1961	n.a.	56.1	33.3	n.a.	1957–58	28.6	
Zambia(*d*)	1963	n.a.	51.4	19.6	(*g*)259	1963	25.0	
Senegal(*d*)	1960–61	n.a.	43.3	16.7	92.9	1957	27.0	
Dahomey(*d*)(*e*)	1961	n.a.	54.0	26.0	109.6	1961	26.8	
Central African Republic(*d*)(*e*)	1959–60	n.a.	48	30	190	1959–60	30.3	27.8
North America—								
United States of America	1968	10.3	17.4	9.6	21.7	1967	14.9	13.5
Mexico	1960–65	(*h*)7.0	(*d*)44–45	(*d*)10–11	(*c*)63.1	1959–61	17.4	16.6
Canada	1968	8.4	17.7	7.4	(*c*)22.0	1960–62	14.6	13.5
Guatemala	1960–65	(*i*)3.5	(*d*)46–48	(*d*)18–20	(*i*)91.5	1963–65	20.7	20.1
Haiti(*d*)	1960–65	n.a.	45–50	20–24	n.a.	1950	30.7	
El Salvador	1960–65	(*c*)3.3	(*d*)47–49	(*d*)14–16	(*c*)63.1	1960–61	17.7	16.6
Puerto Rico	1968	9.6	25.1	5.6	(*c*)30.8	1959–61	14.9	13.9
Jamaica	1960–65	(*c*)4.1	(*d*)39–40	(*d*)8–9	(*i*)35.4	1959–61	16.0	15.0
Costa Rica	1960–65	(*c*)5.6	(*d*)44–46	(*d*)8–9	(*i*)69.9	1962–64	16.2	15.4
South America—								
Brazil(*d*)	1960–65	n.a.	41–43	10–12	n.a.	1940–50	25.4	22.0
Argentina	1967	6.8	22.3	8.8	58.3	1960–65	15.7	14.4
Colombia(*d*)	1960–65	(*c*)4.3	41–44	12–14	(*c*)78.3	1950–52	22.6	21.8
Peru(*d*)	1960–65	(*c*)3.3	44–45	12–14	(*c*)61.9	1960–65	19.0	18.0
Venezuela(*d*)	1960–65	(*c*)5.6	46–48	9–10	(*c*)45.5	1961	15.1	
Chile	1967	7.1	28.4	9.5	99.9	1952	20.1	18.6
Bolivia(*d*)	1960–65	(*i*)5.6	43–45	20–22	(*i*)75.7	1949–51	20.1	20.1

For footnotes *see* next page.

VITAL STATISTICS RATES: CERTAIN COUNTRIES—LATEST AVAILABLE YEAR—*continued*

	Rates(a)					*True death rates(b)*		
Country	*Year*	*Marriage*	*Birth*	*Death*	*Infant mortality*	*Year*	*Male*	*Female*
Asia—								
China (mainland)(*d*)	1957	n.a.	34	11	n.a.	n.a.	n.a.	n.a.
India(*d*)	1951–61	n.a.	41.7	22.8	139	1951–60	23.9	24.7
Indonesia	1962	10.6	(*d*)43.0	(*d*)21.4	(*j*)125	1960	21.1	21.1
Pakistan(*d*)	1965	n.a.	49	18	(*k*)142	1962	18.6	20.5
Japan	1967	9.5	19.4	6.8	15.0	1966	14.6	13.6
Thailand	1966	(*j*)3 6	(*d*)(*l*)46.0	(*d*)(*l*)12.9	33.5	1960	18.7	17.0
Korea, Republic of(*d*)	1955–60	(*j*)12.0	44.7	16.0	(*j*)58.0	1955–60	19.6	18.6
China, Republic of (Taiwan)	1968	7.6	29.3	5.5	(*c*)(*m*)20.6	1965	15.2	14.2
Ceylon	1967	(*i*)5.9	31.6	8.2	(*j*)53.2	1962	16.2	16.3
West Malaysia (Malaya)	1967	1.0	35.2	7.5	(*i*)47.9	1965	16.0	15.6
Hong Kong	1968	n.a.	21.8	5.0	22.3	1968	15.0	13.6
Israel	1968	8.2	25.6	6.7	(*c*)25.9	(*n*)1967	14.2	13.6
Jordan	1959–63	(*c*)5.4	47	16	(*c*)30.6	1959–63	19.0	19.2
Singapore	1968	6.3	23.7	5.5	(*c*)24.8	n.a.	n.a.	n.a.
Europe—								
Germany, Federal Republic of	1968	7.3	19.7	11.9	(*c*)22.8	1964–66	14.8	13.6
United Kingdom of Great Britain and Northern Ireland	1968	(*c*)8.0	17.1	11.9	18.8	1963–65	14.7	13.5
England and Wales	1968	(*c*)8.0	16.9	11.9	18.3	1965–67	14.6	13.4
Northern Ireland	1968	7.5	22.1	10.6	24.0	1965–67	14.7	13.6
Scotland	1968	8.4	18.3	12.2	20.8	1967	14.8	13.6
Italy	1968	7.1	17.3	9.9	(*c*)32.8	1960–62	14.9	13.8
France	1968	7.2	16.8	11.0	20.4	1966	14.7	13.3
Spain	1968	7.1	20.5	8.7	32.0	1960	14.9	13.9
Poland	1968	8.0	16.3	7.6	(*c*)38.1	1963–65	14.8	13.7
Yugoslavia	1968	8.4	18.9	8.6	(*c*)61.4	1961–62	16.0	15.2
Romania	1967	8.0	27.4	9.3	46.6	1963	15.3	14.2
Czechoslovakia	1967	8.4	15.1	10.1	22.9	1966	14.9	13.6
Netherlands	1968	9.2	18.6	8.2	(*c*)13.4	1966	14.1	13.1
Hungary	1968	9.5	15.1	10.9	(*c*)37.0	1964	14.9	13.9
Belgium	1968	7.2	14.9	12.6	(*c*)23.4	1959–63	14.8	13.6
Portugal	1968	8.1	20.5	10.0	(*c*)59.2	1959–62	16.5	15.1
Greece	1968	7.8	18.2	8.3	34.4	1960–62	14.8	14.1
Bulgaria	1968	8.9	16.9	8.6	28.2	1960–62	14.7	14.0
Sweden	1968	6.5	14.3	10.4	(*c*)12.9	1961–65	14.0	13.2
Austria	1968	7.6	17.1	13.0	25.5	1967	15.0	13.6
Switzerland	1968	7.4	17.4	9.4	(*c*)17.5	1958–63	14.6	13.5
Denmark	1967	8.5	16.8	9.9	15.8	1965–66	14.3	13.4
Finland	1968	8.6	16.0	9.6	14.0	1961–65	15.3	13.8
Norway	1968	(*c*)7.7	17.7	9.7	(*i*)14.6	1961–65	14.1	13.2
Ireland	1968	6.5	20.9	11.3	(*c*)24.4	1960–62	14.7	13.9
Albania	1968	7.8	35.6	8.0	(*j*)86.8	1963–64	15.7	15.2
Oceania—								
Australia	1968	8.8	20.0	9.1	17.8	1960–62	14.7	13.5
New Zealand	1968	8.7	22.6	8.9	18.7	1960–62	14.6	13.6
U.S.S.R.—								
Union of Soviet Socialist Republics	1968	8.9	17.3	7.7	26.5	1966–67	14.3	

(*a*) Crude marriage, birth and death rates, i.e. number of marriages, births and deaths per 1,000 of population. Infant mortality—number of deaths of children under one year of age per 1,000 live births. (*b*) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (*see* explanation on page 177). (*c*) 1967. (*d*) Estimated. (*e*) African population only. (*f*) 1954. (*g*) 1950. (*h*) 1968. (*i*) 1966. (*j*) 1965. (*k*) 1962–65. (*l*) 1964. (*m*) Excludes live born infants dying before registration of birth. (*n*) Jewish population.

CHAPTER 9

HOUSING AND BUILDING

Pages 193–8 of this chapter give details of the *characteristics of dwellings as obtained from censuses*, pages 198–210 contain a *summary of building activities*, pages 210–20 outline *government activities in the field of housing*, and pages 221–226 on relate to *financial arrangements associated with the erection or purchase of homes*.

Further information on dwellings obtained from censuses is available in the detailed tables of the 1961 Census and earlier censuses and in the mimeographed statements of the 1966 Census (*see* the chapter Miscellaneous of this Year Book).

More detailed information on building activity is contained in the annual bulletin *Building and Construction* and the *Quarterly Bulletin of Building Statistics*, and current information is obtainable also in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the mimeographed statements *Building Statistics: Number of New Houses and Flats* (quarterly), and *Building Approvals* (monthly). Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statisticians.

Commonwealth Government activities relate in the main to the provision of moneys to State Governments under Commonwealth-State Housing Agreements, to the assistance of ex-service personnel in the erection and purchase of homes, to assistance to young married couples under the Home Savings Grant Act, to the operation of the Housing Loans Insurance Corporation, and to the provision of homes in the Territories. Further details of activities of the Commonwealth and State Housing Authorities are shown in the reports issued by these authorities.

Census dwellings

At each census of the population, in addition to the questions relating to personal particulars, there have been a number of questions relating to dwellings. A 'dwelling' is defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building, and includes, *in addition to houses and flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. This section contains particulars of such information on dwellings as is available from the 1966 Census, together with information from earlier censuses. All statistics in this section are exclusive of particulars of dwellings occupied solely by Aborigines.*

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1911 to 1966. Occupied dwellings are classified into 'private' and 'other than private' dwellings (*see* page 194 for definitions of 'private' and 'other than private' dwellings). Unoccupied dwellings include dwellings whose occupants are temporarily absent, holiday homes, and other temporarily vacant dwellings (*see* page 197 for full explanation of the term 'unoccupied').

DWELLINGS: AUSTRALIA, CENSUSES, 1911 TO 1966

	Occupied			
Census	*Private*	*Other than private*	*Total*	*Unoccupied*
1911 . . .	894,389	29,070	923,459	33,473
1921 . . .	1,107,010	46,275	1,153,285	51,163
1933 . . .	1,509,671	37,705	1,547,376	68,772
1947 . . .	1,873,623	34,272	1,907,895	47,041
1954 . . .	2,343,421	36,932	2,380,353	112,594
1961 . . .	2,781,945	35,325	2,817,270	194,114
1966 . . .	3,151,926	33,730	3,185,656	263,873

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* *See* page 66 for results of *Constitution Alteration* (*Aboriginals*) 1967 Referendum.

The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the Census of 30 June 1966. For delimitation of 'urban centres' *see* this Year Book, page 127.

DWELLINGS: URBAN AND RURAL, AUSTRALIA, CENSUS, 30 JUNE 1966

	Occupied				*Unoccupied*	
			Total			
Division	*Private*	*Other than private*	*Number*	*Percentage of total*	*Number*	*Percentage of total*
Urban—						
Metropolitan	1,886,055	14,287	1,900,342	59.65	86,826	32.90
Other	778,681	9,500	788,181	24.74	81,748	30.98
Rural	487,190	9,943	497,133	15.61	95,299	36.12
Total	**3,151,926**	**33,730**	**3,185,656**	**100.00**	**263,873**	**100.00**

The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1961 and 1966 were as follows.

DWELLINGS: STATES AND TERRITORIES, CENSUSES, 1961 AND 1966

	Census, 30 June 1961		*Census, 30 June 1966*	
State or Territory	*Occupied*	*Unoccupied*	*Occupied*	*Unoccupied*
New South Wales	1,061,609	72,432	1,189,539	101,546
Victoria	790,529	47,389	888,984	64,757
Queensland	398,233	33,969	449,169	41,818
South Australia	261,908	17,061	302,314	25,110
Western Australia	194,317	13,705	224,663	17,965
Tasmania	91,258	8,582	99,366	10,800
Northern Territory	5,479	179	8,067	380
Australian Capital Territory	13,937	797	23,554	1,497
Australia	**2,817,270**	**194,114**	**3,185,656**	**263,873**

Class of dwelling (1961 and 1966)

The following table shows the numbers of the various classes of occupied dwellings in the metropolitan urban, other urban, and rural areas of Australia at the Censuses of 1961 and 1966. The 1961 dwellings data in the following table have not been compiled for the separate divisions of State according to criteria adopted at the 1966 Census (*see* page 127), and consequently accurate comparison between 1961 and 1966 figures for divisions of State cannot be made. The numbers of the various classes of dwelling for each State and Territory at the 1966 Census are given in the table on page 195.

Private dwellings are classified into the following categories:

private house—includes houses, sheds, huts, garages, etc., used for dwelling purposes;

share of private house—portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received;

flat—part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

other private dwelling—includes private dwellings such as rooms, apartments, etc., which are parts of buildings but are not self-contained units.

Other than private dwellings includes hotels; motels; boarding houses, lodging houses and hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; police and fire stations; clubs; staff barracks and quarters, etc.

OCCUPIED DWELLINGS, BY CLASS: URBAN AND RURAL(*a*), AUSTRALIA CENSUSES, 1961 AND 1966

	Census, 30 June 1961		*Census, 30 June 1966*					
			Urban					
Class of dwelling	*Total*	*Percentage of total occupied dwellings*	*Metropolitan*	*Other*	*Rural*	*Total*	*Percentage of total occupied dwellings*	*Intercensal increase or decrease*
Private dwellings—								
Private house	2,393,169	84.95	1,529,059	692,742	459,924	2,681,725	84.18	288,556
Share of private house	79,550	2.82	(*b*)20,940	(*b*)3,682	(*b*)1,292	25,914	0.81	−53,636
Self-contained flat	217,586	7.72	274,367	63,338	7,880	345,585	10.85	129,167
Share of self-contained flat	(*c*)	(*c*)	(*d*)956	(*d*)193	(*d*)19	1,168	0.04	(*c*)
Shed, hut, tent, etc.	41,997	1.49	5,084	9,541	16,431	31,056	0.97	−10,941
Other private dwellings	49,643	1.76	55,649	9,185	1,644	66,478	2.09	16,835
Total private dwellings	*2,781,945*	*98.75*	*1,886,055*	*778,681*	*487,190*	*3,151,926*	*98.94*	*369,981*
Non-private dwellings(*e*)	35,325	1.25	14,287	9,500	9,943	33,730	1.06	−1,595
Total occupied dwellings	**2,817,270**	**100.00**	**1,900,342**	**788,181**	**497,133**	**3,185,656**	**100.00**	**368,386**

(*a*) *See* text on page 194 regarding comparability between censuses. (*b*) Represents 10,077 private houses in metropolitan areas, 1,799 in other urban areas and 637 in rural areas. (*c*) At the 1961 Census share of self-contained flat was not separately identified. In cases where more than one household group were occupying a self-contained flat they were counted as one household group occupying a self-contained flat. (*d*) Represents 460 self-contained flats in metropolitan areas, 93 in other urban areas and 9 in rural areas. (*e*) Details of the number of each of the types of non-private dwellings are available on request.

Minus sign (−) denotes decrease.

OCCUPIED DWELLINGS, BY CLASS: STATES AND TERRITORIES CENSUS, 30 JUNE 1966

Class of dwelling	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Australia*
Private dwellings—									
Private house	961,077	752,776	381,681	271,045	200,900	88,780	5,817	19,649	2,681,725
Share of private house	11,496	9,166	1,586	2,140	844	469	43	170	25,914
Self-contained flat	164,380	92,166	43,069	20,802	14,074	7,036	838	3,220	345,585
Share of self-contained flat	666	277	104	61	18	22	5	15	1,168
Shed, hut, tent, etc.	12,309	3,725	7,952	1,938	3,439	882	616	195	31,056
Other private dwellings	28,194	23,338	7,759	3,644	2,169	1,093	180	101	66,478
Total private dwellings	*1,178,122*	*881,448*	*442,151*	*299,630*	*221,444*	*98,282*	*7,499*	*23,350*	*3,151,926*
Non-private dwellings	11,417	7,536	7,018	2,684	3,219	1,084	568	204	33,730
Total occupied dwellings	**1,189,539**	**888,984**	**449,169**	**302,314**	**224,663**	**99,366**	**8,067**	**23,554**	**3,185,656**

Population according to class of dwelling, etc. (1961 and 1966)

The following table shows the number of the various classes of occupied dwellings at the censuses of 1961 and 1966, together with the number of inmates therein.

NUMBER OF INMATES, BY CLASS OF DWELLING: AUSTRALIA CENSUSES, 1961 AND 1966

	Census, 30 June 1961		*Census, 30 June 1966*					
			Urban					
	Total	*Percentage of total population*	*Metropolitan*	*Other*	*Rural*	*Total*	*Percentage of total population*	*Intercensal increase or decrease*
Persons enumerated in—								
Private dwellings—								
Private house	8,881,128	84.52	5,581,056	2,498,521	1,743,443	9,823,020	85.04	941,892
Share of private house	224,066	2.13	59,943	10,281	4,556	74,780	0.65	−149,286
Self-contained flat	552,596	5.26	646,203	163,753	23,759	833,715	7.22	283,648
Share of self-contained flat	(*a*)	(*a*)	2,060	425	44	2,529	0.02	(*a*)
Shed, hut, tent, etc.	116,458	1.11	13,415	24,390	38,881	76,686	0.66	−39,772
Other private dwellings	96,246	0.92	97,321	18,476	3,973	119,770	1.04	23,524
Total private dwellings	*9,870,494*	*93.93*	*6,399,998*	*2,715,846*	*1,814,656*	*10,930,500*	*94.63*	*1,060,006*
Non-private dwellings	596,412	5.68	313,587	174,539	96,901	585,027	5.06	−11,385
Total	**10,466,906**	**99.61**	**6,713,585**	**2,890,385**	**1,911,557**	**11,515,527**	**99.70**	**1,048,621**
Persons not enumerated in dwellings—								
Campers out	15,994	0.15	1,412	7,128	6,708	15,248	0.13	−746
Migratory(*b*)	25,286	0.24	..	..	..	19,687	0.17	−5,599
Total population	10,508,186	100.00	6,714,997	2,897,513	1,918,265	11,550,462	100.00	1,042,276

(*a*) At the 1961 Census share of a self-contained flat was not separately identified. (*b*) Shipping, railway and air travellers.

Minus sign (−) denotes decrease.

Occupied private dwellings

The tables on pages 196–8 shows **houses and flats** classified according to material of outer walls; nature of occupancy; facilities; and number of motor vehicles. Details of number of rooms and number of inmates are shown for **occupied private dwellings.**

Material of outer walls (1961 and 1966)

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS, BY MATERIAL OF OUTER WALLS: AUSTRALIA, CENSUSES, 1961 AND 1966

	Census, 30 June 1961				*Census, 30 June 1966*			
Material of outer walls	*Houses*	*Percentage of total*	*Self-contained flats*	*Percentage of total*	*Houses*	*Percentage of total*	*Self-contained flats*	*Percentage of total*
Brick	743,426	31.06	144,209	66.28	674,286	25.14	224,947	65.09
Brick veneer(*a*)	(*b*)	(*b*)	(*b*)	(*b*)	262,150	9.78	16,250	4.70
Stone	71,476	2.99	5,904	2.71	68,898	2.57	6,514	1.88
Concrete	62,839	2.63	9,226	4.24	68,144	2.54	17,670	5.11
Wood	1,056,180	44.13	38,862	17.86	1,076,435	40.14	50,260	14.54
Iron, tin	35,930	1.50	984	0.45	28,364	1.06	1,169	0.34
Fibro-cement	411,960	17.21	17,675	8.12	495,284	18.47	28,559	8.26
Other	10,165	0.42	349	0.16	8,164	0.30	216	0.06
Not stated	1,193	0.05	377	0.17	(*c*)	(*c*)	(*c*)	(*c*)
Total	**2,393,169**	**100.00**	**217,586**	**100.00**	**2,681,725**	**100.00**	**345,585**	**100.00**

(*a*) So described in individual Census Schedules. (*b*) At the 1961 Census, dwellings with walls of brick veneer were not separately identified and for tabulation purposes were included with brick walled dwellings. (*c*) In the small number of cases where material of outer walls was not stated a material was selected during processing of the 1966 Census schedules. Selection was based upon the answer given for the geographically nearest dwelling of the same class as the dwelling for which material of outer walls was not stated.

Number of rooms (1961 and 1966)

OCCUPIED PRIVATE DWELLINGS, BY NUMBER OF ROOMS AND CLASS OF DWELLING AUSTRALIA, CENSUSES, 1961 AND 1966

	Census, 30 June 1961				*Census, 30 June 1966*			
	Class of dwelling				*Class of dwelling*			
Number of rooms per dwelling(a)	*Private house*	*Self-contained flat*	*Other*	*Total private dwellings*	*Private house*	*Self-contained flat*	*Other*	*Total private dwellings*
1	1,179	2,282	36,371	39,832	2,194	7,803	40,734	50,731
2	17,000	20,635	48,857	86,492	14,925	50,851	37,078	102,854
3	63,849	53,585	38,108	155,542	62,605	93,579	23,049	179,233
4	384,691	77,531	23,106	485,328	369,127	113,611	11,037	493,775
5	902,466	39,914	13,891	956,271	1,055,571	50,894	6,080	1,112,545
6	656,239	15,723	2,522	674,484	697,115	18,744	3,414	719,273
7	231,806	4,471	741	237,018	305,770	6,104	1,706	313,580
8	80,889	1,674	297	82,860	105,955	2,334	788	109,077
9	28,064	572	104	28,740	37,447	806	301	38,554
10	12,766	83	65	12,914	16,574	401	173	17,148
11 and over	11,415	77	85	11,577	14,442	458	256	15,156
Not stated	2,805	1,039	7,043	10,877	..	..	..	..
Total private dwellings	**2,393,169**	**217,586**	**171,190**	**2,781,945**	**2,681,725**	**345,585**	**124,616**	**3,151,926**
Average number of rooms per dwelling	5.44	3.97	2.65	5.16	5.53	3.74	2.50	5.21

(*a*) Includes kitchen and permanently enclosed sleep-out but does not include bathroom, pantry, laundry or storehouse.

Nature of occupancy (1961 and 1966)

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS, BY NATURE OF OCCUPANCY
AUSTRALIA, CENSUSES, 1961 AND 1966

	Private houses				*Self-contained flats*			
	Census, 30 June 1961		*Census, 30 June 1966*		*Census, 30 June 1961*		*Census, 30 June 1966*	
Nature of occupancy(a)	*Total*	*Percentage of private houses*	*Total*	*Percentage of private houses*	*Total*	*Percentage of flats*	*Total*	*Percentage of flats*
Owner Purchaser by installments	1,847,201	77.19	2,123,723	79.19	43,527	20.00	72,711	21.04
Tenant of government authority	99,610	4.16	132,997	4.96	13,925	6.40	27,346	7.91
Other tenant	388,128	16.22	360,976	13.46	155,110	71.29	237,436	68.71
Other methods of occupancy	49,420	2.07	48,032	1.79	4,336	1.99	5,644	1.63
Not stated	8,810	0.37	15,997	0.60	688	0.32	2,448	0.71
Total	**2,393,169**	100.00	**2,681,725**	100.00	**217,586**	**100.00**	**345,585**	**100.00**

(*a*) *See* text on page 194 regarding comparability between censuses.

At the 1961 Census persons paying interest only on a mortgage on the dwelling were instructed to enter 'owner', but a person buying a house by regular payments including interest and principal was instructed to enter 'purchaser by instalment'. It is probable, however, that some 'purchasers by instalment' described themselves on 1961 Census schedules as 'owners' especially where they possessed the title to the property. However, the extent of such mis-statements has not been measured. At the 1966 Census, as the two categories can be logically grouped, separate details for 'owners' and 'purchasers by instalment' were not collected.

Facilities (1961 and 1966)

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS, BY FACILITIES
AUSTRALIA, CENSUSES, 1961 AND 1966

	Private houses		*Self-contained flats*	
Facilities	*Census 30 June 1961*	*Census 30 June 1966*	*Census 30 June 1961*	*Census 30 June 1966*
With gas only	5,386	5,169	171	481
With electricity only	1,322,300	1,505,550	63,378	128,072
With gas and electricity	1,008,763	1,139,868	153,231	214,876
Neither gas nor electricity	87,839	23,497	277	271
Not stated	10,878	7,641	529	1,885
Total	**2,435,166**	**2,681,725**	**217,586**	**345,585**
With television set	1,139,578	2,154,321	97,226	235,083

NOTE. Dwellings for which electricity was not stated but which had television have been classified as having electricity and therefore included as such in this table.

Unoccupied dwellings (1961 and 1966)

The following table classifies unoccupied dwellings by class. Unoccupied dwellings include vacant dwellings available for sale or renting; dwellings such as 'week-ender', 'holiday home', 'second home', 'seasonal workers' quarters', which were not occupied on the night of the census; dwellings normally occupied, but whose usual occupants were temporarily absent on the night of the census; newly completed dwellings whose owners or tenants had not entered into occupation on the night of the census; dwellings described as 'to be demolished', 'condemned', 'deceased estate', 'exhibition home', etc.; and buildings constructed as dwellings but used for non-dwelling purposes on the night of the Census. The total number of unoccupied dwellings shown for any area does not, therefore, represent the number of vacant houses and flats available for sale or renting.

UNOCCUPIED DWELLINGS, BY CLASS: URBAN AND RURAL, AUSTRALIA CENSUSES, 1961 AND 1966

Class of dwelling	Census 30 June 1961 Total	Census, 30 June 1966			
		Urban			
		Metropolitan	Other	Rural	Total
Private house	156,473	55,636	66,362	79,149	201,147
Self-contained flat	21,887	26,922	11,923	1,397	40,242
Other private dwellings(*a*)	7,073	4,157	3,133	8,881	16,171
Non-private dwellings(*a*)	1,443	111	330	5,872	6,313
Not stated	7,238	..	..	..	..
Total unoccupied dwellings	**194,114**	**86,826**	**81,748**	**95,299**	**263,873**

(*a*) The inter-censal increase in unoccupied other private and non-private dwellings is mainly the result of a better coverage at the 1966 Census of dwellings occupied for only a short period of time each year, such as shearers' huts, seasonal workers' quarters, etc.

Building

Statistics of building approved

Statistics of building approvals have been compiled since the year 1953–54 from (*a*) permits issued by local government authorities in the areas subject to building control by these authorities, and (*b*) contracts let or work commenced and day labour projects authorised by governmental authorities. *They relate only to approvals for buildings as distinct from the construction of roads, railways, bridges, earthworks, water storages, etc.* Values shown represent the estimated cost when completed (excluding cost of land) of new buildings and alterations and additions to existing buildings. Before 1 July 1966 additions of $10,000 and over were included with new buildings in all States except New South Wales, where they were included in 'alterations and additions'. From 1 July 1966 alterations and or additions of $10,000 and over are included with new buildings in all States.

Statistics of building commenced, completed and under construction

These relate to building by private contractors, government authorities and owner-builders. The following outlines the scope of the statistics: (*a*) *only the erection of new buildings as distinct from the construction of roads, railways, bridges, earthworks, water storages, etc., is covered;* (*b*) before 1 July 1966 major new additions to existing buildings in all States and major alterations in New South Wales were included with new buildings, while from 1 July 1966 alterations and or additions of $10,000 and over are included with new buildings in all States; (*c*) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining details of this work; (*d*) temporary dwellings, sheds, huts, etc., are excluded; (*e*) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached); figures for flats include 'home units'; (*f*) details obtained from government authorities and building contractors refer to all areas, whereas details for owner-builders cover only areas subject to building control by local government authorities.

The following definitions of terms used in this section are necessary for interpretation of the data presented.

Private or government ownership. A building is classified as 'private' or 'government' according to ownership at date of commencement. Thus 'government' includes buildings erected for Commonwealth and State Governments, semi-governmental and local government authorities, either by contractor or by day-labour, whether these buildings are for their own use or for rental or sale after completion. Houses erected *for particular persons* under government-sponsored home building schemes or with government financial assistance are classified as 'private'.

Owner-built. An 'owner-built' house is one actually erected or being erected by the owner or under the owner's direction without the services of a contractor who is responsible for the whole job.

Contract-built. Includes the operations of all building contractors and government authorities which undertake the erection of new buildings.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

Completed. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

Under construction. A building is regarded as being under construction if it has been commenced but not completed, whether or not work on the building is actively proceeding.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

Values of work done. The values of work done during the period represent the estimated value of work actually carried out on buildings during the period. For any building the sum of these values obtained during its construction equals the value of the building on completion. Data relating to the value of work done on owner-built houses are not collected. However, the figures shown for the value of work done include a component relating to owner-built houses calculated on the basis of the figures collected for the value of owner-built houses commenced, completed and under construction.

Type of building. Classification is according to the function a building is intended to serve. A building which is ancillary to other buildings or forms part of a group of related buildings is classified according to the function of the group as a whole.

Persons working. Figures relate to persons working on the jobs of contractors who undertake the erection of new buildings and of government authorities which erect new buildings on their own account. They include persons working on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and authorities. Contractors are asked to give details of all persons working on their jobs *on a specified day*, including working principals, men working as or for sub-contractors and men temporarily laid off on account of weather. Because of the intermittent employment of various types of sub-contractors on any particular job, it is sometimes difficult for contractors and authorities to provide precise particulars of the number of sub-contractors and the number of employees of sub-contractors working on their jobs on the specified day. This factor may cause some estimation by persons completing returns and some degree of understatement in figures shown in tables. On the other hand, because of frequent movement between jobs of some types of tradesmen (such as electricians) who may work on several jobs on the one day, a small element of duplication may occur. The figures *exclude* persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

New houses approved, commenced, completed and under construction

The next table provides a summary for 1968–69 of the number of new houses approved, commenced, completed and under construction in each State and Territory. For a graph showing the number of new houses commenced, completed and under construction for the period 1959–60 to 1968–69 *see* plate 22, page 203.

NEW HOUSES: NUMBER, STATES AND TERRITORIES, 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved . . .	32,328	24,326	14,299	7,786	14,479	2,694	857	2,898	99,667
Commenced . .	30,370	23,580	14,180	7,212	13,848	2,580	923	2,871	95,564
Completed . . .	28,794	22,731	14,268	6,954	12,840	2,704	740	2,515	91,546
Under construction at end of year . .	13,075	11,290	3,562	3,366	6,104	1,372	804	1,547	41,120

The following table shows the number of *new houses approved* in each State or Territory, according to *private and government ownership*, during the years 1964–65 to 1968–69.

NEW HOUSES APPROVED, BY OWNERSHIP: NUMBER, STATES AND TERRITORIES 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
PRIVATE									
1964–65	24,685	20,301	10,269	7,289	5,512	2,062	203	1,189	71,510
1965–66	23,481	18,572	10,376	6,687	5,537	1,837	84	1,318	67,892
1966–67	23,666	20,068	11,331	5,495	7,127	2,500	91	1,458	71,736
1967–68	26,478	20,998	11,958	4,925	10,030	2,393	131	1,374	78,287
1968–69	28,102	22,357	12,443	5,704	12,912	2,206	224	1,889	85,837
GOVERNMENT									
1964–65	4,082	2,207	1,460	2,519	2,058	607	571	854	14,358
1965–66	3,116	1,889	1,526	2,470	1,892	591	492	709	12,685
1966–67	4,737	1,602	1,804	1,632	1,585	718	428	1,155	13,661
1967–68	2,873	1,320	1,494	942	1,889	916	676	590	10,700
1968–69	4,226	1,969	1,856	2,082	1,567	488	633	1,009	13,830
TOTAL									
1964–65	28,767	22,508	11,729	9,808	7,570	2,669	774	2,043	85,868
1965–66	26,597	20,461	11,902	9,157	7,429	2,428	576	2,027	80,577
1966–67	28,403	21,670	13,135	7,127	8,712	3,218	519	2,613	85,397
1967–68	29,351	22,318	13,452	5,867	11,919	3,309	807	1,964	88,987
1968–69	32,328	24,326	14,299	7,786	14,479	2,694	857	2,898	99,667

The number of *new houses commenced* in each State and Territory by *contractors and owner-builders* during the years 1964–65 to 1968–69 is shown in the following table.

NEW HOUSES COMMENCED, CONTRACT-BUILT OR OWNER-BUILT NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
CONTRACT-BUILT(*a*)									
1964–65	22,764	18,900	10,202	10,639	6,537	1,791	557	1,793	73,183
1965–66	20,704	17,587	10,650	8,826	6,647	1,576	484	1,945	68,419
1966–67	22,466	18,330	10,802	7,843	7,626	2,170	475	2,088	71,800
1967–68	22,530	18,858	11,913	6,311	10,282	2,181	708	2,326	75,109
1968–69	26,465	20,334	12,930	6,881	12,464	1,747	820	2,784	84,425
OWNER-BUILT									
1964–65	3,860	2,867	1,455	581	930	755	48	117	10,613
1965–66	3,864	2,943	1,416	569	930	626	30	167	10,545
1966–67	3,362	2,760	1,504	529	913	782	91	117	10,058
1967–68	3,675	3,050	1,375	441	1,190	961	55	63	10,810
1968–69	3,905	3,246	1,250	331	1,384	833	103	87	11,139
TOTAL									
1964–65	26,624	21,767	11,657	11,220	7,467	2,546	605	1,910	83,796
1965–66	24,568	20,530	12,066	9,395	7,577	2,202	514	2,112	78,964
1966–67	25,828	21,090	12,306	8,372	8,539	2,952	566	2,205	81,858
1967–68	26,205	21,908	13,288	6,752	11,472	3,142	763	2,389	85,919
1968–69	30,370	23,580	14,180	7,212	13,848	2,580	923	2,871	95,564

(*a*) Includes operations of government authorities.

The following table shows the number of *new houses completed* in each State and Territory *by contractors and owner-builders* during the years 1964–65 to 1968–69.

NEW HOUSES COMPLETED, CONTRACT-BUILT OR OWNER-BUILT NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
CONTRACT-BUILT(*a*)									
1964–65 . . .	22,976	19,544	10,158	10,490	6,396	1,779	424	1,673	**73,440**
1965–66 . . .	22,022	17,662	10,300	9,741	6,282	1,572	621	1,937	**70,137**
1966–67 . . .	21,216	19,149	10,675	8,739	7,398	1,850	265	1,861	**71,153**
1967–68 . . .	23,111	18,648	11,720	6,998	8,810	2,442	644	2,331	**74,704**
1968–69 . . .	24,360	19,390	12,857	6,574	11,616	1,905	674	2,436	**79,812**
OWNER-BUILT									
1964–65 . . .	3,788	3,277	1,388	560	1,049	800	49	133	**11,044**
1965–66 . . .	3,882	3,267	1,362	612	983	688	36	129	**10,959**
1966–67 . . .	3,563	2,977	1,602	615	874	915	92	169	**10,807**
1967–68 . . .	4,159	2,944	1,378	446	1,048	889	55	133	**11,052**
1968–69 . . .	4,434	3,341	1,411	380	1,224	799	66	79	**11,734**

(*a*) Includes operations of government authorities.

The number of *new houses completed* in each State and Territory during the years 1964–65 to 1968–69, according to *private and government ownership*, is shown in the following table.

NEW HOUSES COMPLETED, BY OWNERSHIP: NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
PRIVATE									
1964–65 . . .	21,935	20,781	10,117	7,873	5,612	2,000	117	1,086	**69,521**
1965–66 . . .	22,056	19,014	10,234	7,230	5,228	1,703	105	1,218	**66,788**
1966–67 . . .	21,343	19,558	10,711	6,252	6,676	2,138	153	1,336	**68,167**
1967–68 . . .	23,126	20,276	11,381	5,141	8,533	2,594	134	1,557	**72,742**
1968–69 . . .	25,503	21,334	12,548	5,110	11,007	1,969	156	1,612	**79,239**
GOVERNMENT									
1964–65 . . .	4,829	2,040	1,429	3,177	1,833	579	356	720	**14,963**
1965–66 . . .	3,848	1,915	1,428	3,123	2,037	557	552	848	**14,308**
1966–67 . . .	3,436	2,568	1,566	3,102	1,596	627	204	694	**13,793**
1967–68 . . .	4,144	1,316	1,717	2,303	1,325	737	565	907	**13,014**
1968–69 . . .	3,291	1,397	1,720	1,844	1,833	735	584	903	**12,307**
TOTAL									
1964–65 . . .	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	**84,484**
1965–66 . . .	25,904	20,929	11,662	10,353	7,265	2,260	657	2,066	**81,096**
1966–67 . . .	24,779	22,126	12,277	9,354	8,272	2,765	357	2,030	**81,960**
1967–68 . . .	27,270	21,592	13,098	7,444	9,858	3,331	699	2,464	**85,756**
1968–69 . . .	28,794	22,731	14,268	6,954	12,840	2,704	740	2,515	**91,546**

The following tables show the number of *new houses completed* in each State and Territory during 1968–69 and in Australia during the years 1964–65 to 1968–69, classified according to the *material of their outer walls.*

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER STATES AND TERRITORIES, 1968-69

Materials of outer walls	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Brick, brick veneer, concrete and stone	17,725	19,759	5,815	6,353	10,442	1,724	368	2,510	64,696
Wood (weatherboard, etc.) .	2,779	1,218	5,774	12	11	755	..	5	10,554
Fibro-cement	8,108	1,594	2,474	548	2,335	124	342	..	15,525
Other	182	160	205	41	52	101	30	..	771
Total	**28,794**	**22,731**	**14,268**	**6,954**	**12,840**	**2,704**	**740**	**2,515**	**91,546**

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER AUSTRALIA, 1964-65 TO 1968-69

Material of outer walls	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Brick, brick veneer, concrete and stone .	52,285	52,148	54,116	57,506	64,696
Wood (weatherboard, etc.)	14,480	12,247	11,294	11,633	10,554
Fibro-cement	17,171	16,027	15,581	15,820	15,525
Other	548	674	969	797	771
Total	**84,484**	**81,096**	**81,960**	**85,756**	**91,546**

The number of *new houses under construction* at the end of each year 1964–65 to 1968–69 in each State and Territory is shown in the following table.

NEW HOUSES UNDER CONSTRUCTION: NUMBER, STATES AND TERRITORIES 1964-65 TO 1968-69

At end of year—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65 . .	12,851	11,858	3,027	5,809	2,945	1,600	491	1,055	39,636
1965–66 . .	11,515	11,459	3,431	4,851	3,257	1,542	348	1,101	37,504
1966–67 . .	12,564	10,423	3,460	3,869	3,524	1,729	557	1,276	37,402
1967–68 . .	11,499	10,713	3,650	3,151	5,123	1,538	621	1,201	37,496
1968–69 . .	13,075	11,290	3,562	3,366	6,104	1,372	804	1,547	41,120

New flats approved, commenced, completed and under construction

The following table shows the number of new flats approved, commenced, completed and under construction for the year 1968–69. For a graph showing the number of new flats commenced, completed and under construction for the period 1959–60 to 1968–69 *see* plate 23, page 206.

NEW FLATS: NUMBER, STATES AND TERRITORIES, 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved . . .	22,230	14,073	2,488	2,591	6,192	438	483	299	48,794
Commenced . .	18,416	14,117	2,586	2,100	5,366	364	488	301	43,738
Completed . . .	16,362	13,775	2,863	1,741	3,491	366	469	74	39,141
Under construction at end of year . .	10,684	9,158	896	1,155	4,237	246	417	267	27,060

NEW HOUSES: AUSTRALIA

1959-60 TO 1968-69

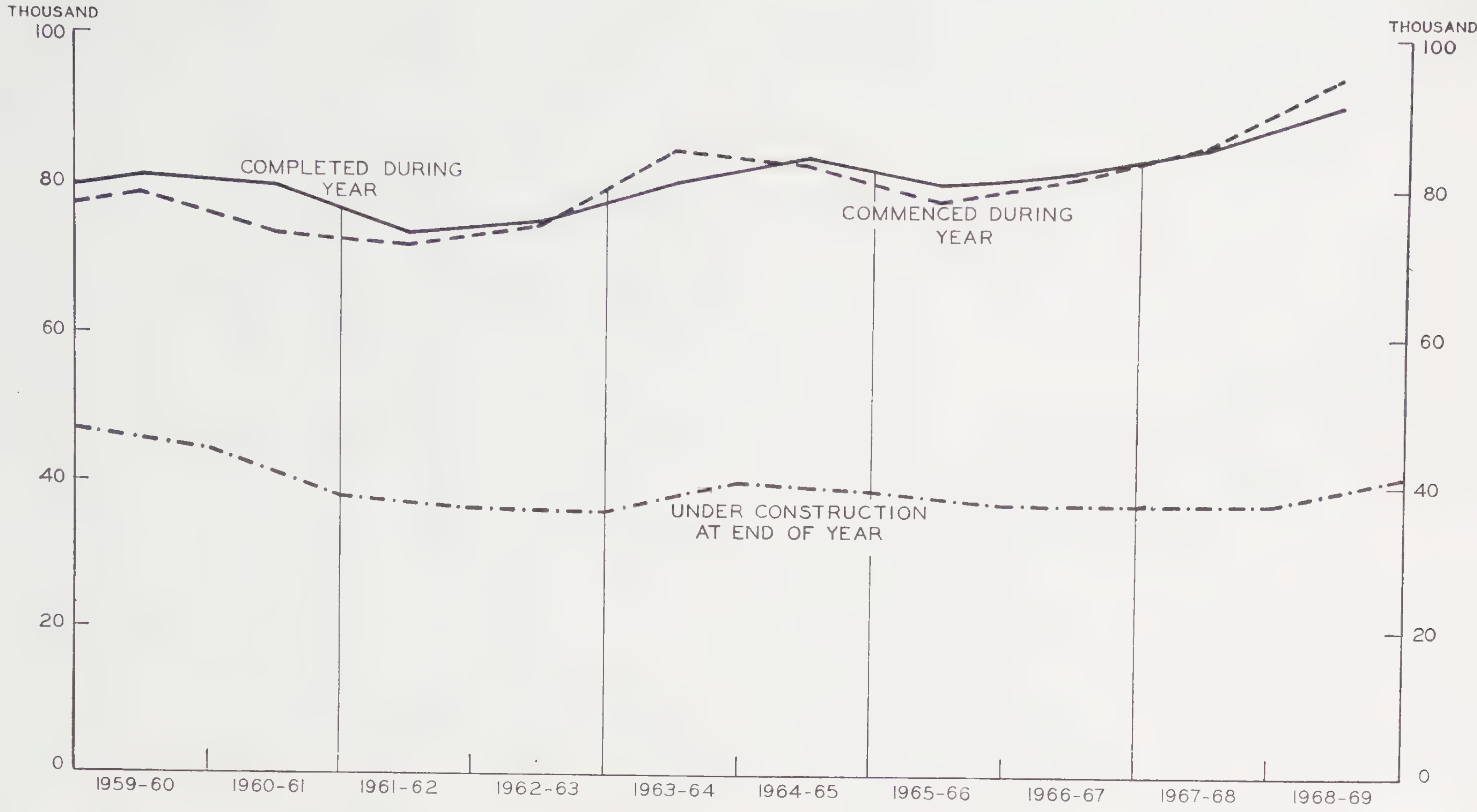

PLATE 22

The following table shows the number of *new flats approved* in each State or Territory during the years 1964–65 to 1968–69 according to *private and government ownership.*

NEW FLATS APPROVED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
PRIVATE									
1964–65	16,337	9,418	3,132	2,488	1,718	224	90	368	33,775
1965–66	11,603	8,235	3,838	1,778	1,761	198	135	154	27,702
1966–67	12,544	11,495	3,766	1,355	2,708	209	156	190	32,423
1967–68	17,028	14,894	2,853	1,835	3,094	346	475	36	40,561
1968–69	21,258	13,134	2,474	2,419	5,493	432	381	299	45,890
GOVERNMENT									
1964–65	1,810	982	12	38	77	28	75	126	3,148
1965–66	1,049	772	14	. .	12	20	38	. .	1,905
1966–67	1,376	1,443	20	. .	27	18	225	8	3,117
1967–68	1,030	1,288	6	17	106	79	54	. .	2,580
1968–69	972	939	14	172	699	6	102	. .	2,904
TOTAL									
1964–65	18,147	10,400	3,144	2,526	1,795	252	165	494	36,923
1965–66	12,652	9,007	3,852	1,778	1,773	218	173	154	29,607
1966–67	13,920	12,938	3,786	1,355	2,735	227	381	198	35,540
1967–68	18,058	16,182	2,859	1,852	3,200	425	529	36	43,141
1968–69	22,230	14,073	2,488	2,591	6,192	438	483	299	48,794

The number of *new flats commenced* in each State or Territory during the years 1964–65 to 1968–69 is shown in the following table.

NEW FLATS COMMENCED: NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	15,583	10,054	2,428	2,158	1,730	251	148	561	32,913
1965–66	12,468	8,549	3,636	1,547	1,550	211	116	163	28,240
1966–67	13,145	11,987	3,662	1,321	2,455	186	308	194	33,258
1967–68	14,369	14,399	2,997	1,561	3,172	367	305	28	37,198
1968–69	18,416	14,117	2,586	2,100	5,366	364	488	301	43,738

The following table shows the number of *new flats completed* in each State and Territory during the years 1964–65 to 1968–69, according to *private and government ownership*.

NEW FLATS COMPLETED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				PRIVATE					
1964–65	12,150	7,884	1,946	1,775	1,826	131	53	191	25,956
1965–66	12,822	8,486	2,952	1,797	1,547	205	51	386	28,246
1966–67	10,853	9,218	4,004	1,482	1,730	153	85	152	27,677
1967–68	12,770	11,635	3,161	1,350	2,382	219	163	167	31,847
1968–69	15,231	12,921	2,843	1,711	3,337	352	254	74	36,723
				GOVERNMENT					
1964–65	976	790	133	45	15	22	84	146	2,211
1965–66	2,040	1,020	12	59	77	16	74	126	3,424
1966–67	1,235	920	14	. .	12	32	42	. .	2,255
1967–68	1,338	1,051	20	23	10	73	48	4	2,567
1968–69	1,131	854	20	30	154	14	215	. .	2,418
				TOTAL					
1964–65	13,126	8,674	2,079	1,820	1,841	153	137	337	28,167
1965–66	14,862	9,506	2,964	1,856	1,624	221	125	512	31,670
1966–67	12,088	10,138	4,018	1,482	1,742	185	127	152	29,932
1967–68	14,108	12,686	3,181	1,373	2,392	292	211	171	34,414
1968–69	16,362	13,775	2,863	1,741	3,491	366	469	74	39,141

The number of *new flats under construction* at the end of each year 1964–65 to 1968–69 in each State and Territory is shown in the table below.

NEW FLATS UNDER CONSTRUCTION
NUMBER, STATES AND TERRITORIES, 1964-65 TO 1968-69

At end of year—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	9,706	6,331	1,041	1,063	950	188	132	488	19,899
1965–66	7,312	5,374	1,713	754	876	178	123	139	16,469
1966–67	8,369	7,223	1,357	593	1,589	179	304	181	19,795
1967–68	8,630	8,914	1,173	798	2,369	254	398	38	22,574
1968–69	10,684	9,158	896	1,155	4,237	246	417	267	27,060

NEW FLATS: AUSTRALIA

1959-60 TO 1968-69

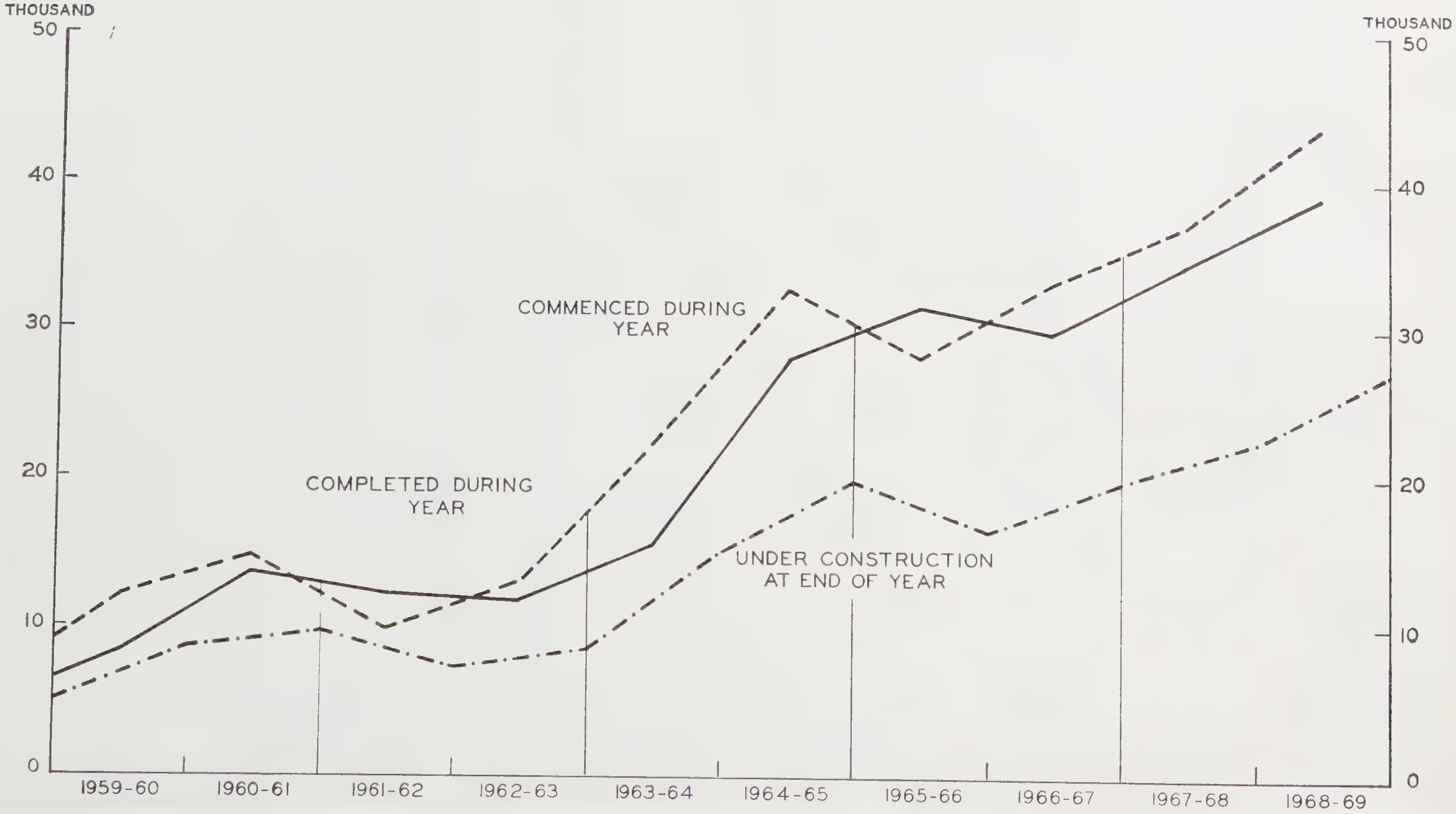

PLATE 23

Value of new buildings approved, commenced, completed and under construction

The following table summarises, for the years 1964–65 to 1968–69, the values of all new buildings approved, commenced, completed and under construction, and the value of work done, in each State and Territory. For explanation of the breaks in series in the following table *see* pages 198–9.

NEW BUILDINGS: VALUE, STATES AND TERRITORIES, 1964-65 TO 1968-69
($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
APPROVED									
1964–65	531,344	437,514	203,386	166,010	131,958	42,760	17,658	48,220	1,578,850
1965–66	490,235	458,608	227,756	133,840	122,572	46,901	14,765	44,903	1,539,580
1966–67	597,416	494,050	219,283	116,623	162,937	53,955	17,604	60,594	1,722,462
1967–68	689,070	516,339	268,894	148,672	240,792	72,018	28,488	44,168	2,008,441
1968–69	802,479	560,671	266,056	145,872	305,594	52,289	28,048	71,256	2,232,265
COMMENCED									
1964–65	594,378	419,864	201,704	168,988	122,056	42,040	13,140	54,224	1,616,394
1965–66	558,427	450,737	225,553	145,997	130,982	43,789	15,405	49,935	1,620,825
1966–67	604,641	509,892	231,776	130,268	169,457	62,077	17,807	54,762	1,780,680
1967–68	689,372	504,864	280,536	129,004	242,305	63,152	25,696	54,869	1,989,798
1968–69	793,388	575,994	268,821	150,145	297,684	56,200	29,901	65,015	2,237,148
COMPLETED									
1964–65	531,544	402,280	178,470	154,500	107,100	37,744	11,784	42,986	1,466,408
1965–66	583,236	415,375	209,306	160,301	130,178	39,680	12,065	57,566	1,607,707
1966–67	625,956	471,943	219,098	135,221	162,135	48,218	13,243	57,582	1,733,396
1967–68	638,958	497,370	256,974	138,531	195,403	61,885	20,295	56,268	1,865,684
1968–69	721,504	578,126	271,264	156,712	254,833	56,948	25,926	71,348	2,136,661
UNDER CONSTRUCTION AT END OF YEAR									
1964–65	485,184	327,310	113,222	130,890	88,436	33,366	11,254	66,686	1,256,348
1965–66	473,627	369,747	133,544	120,662	90,982	37,412	14,816	59,615	1,300,405
1966–67	460,701	422,577	150,432	118,940	100,119	51,269	19,811	59,141	1,382,990
1967–68	521,357	443,905	176,917	112,356	148,846	52,506	25,205	60,476	1,541,568
1968–69	604,977	451,906	177,913	108,939	194,278	51,896	29,121	54,150	1,673,180
VALUE OF WORK DONE DURING YEAR									
1964–65	569,752	413,496	186,234	160,364	122,976	38,356	11,778	53,860	1,556,816
1965–66	614,477	442,402	221,780	156,762	133,483	43,201	13,749	55,308	1,681,162
1966–67	597,044	487,403	231,768	143,587	163,726	53,098	16,635	52,163	1,745,424
1967–68	639,226	525,750	255,345	137,506	212,437	60,058	22,510	61,515	1,914,347
1968–69	762,546	580,374	287,704	144,297	270,012	58,785	27,746	63,886	2,195,350

The following tables show the value of *all new buildings completed* in each State and Territory during 1968–69 and in Australia during the years 1964–65 to 1968–69, according to the *type of building*.

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE STATES AND TERRITORIES, 1968-69

($'000)

Type of building	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Houses—									
Brick, brick veneer, concrete and stone	208,243	209,319	66,135	59,132	110,795	18,342	4,058	29,882	705,906
Wood (weatherboard, etc.)	24,070	9,248	46,986	108	69	5,366	. .	56	85,903
Fibro-cement	55,896	10,402	18,980	3,747	21,865	639	4,501	. .	116,030
Other	1,418	1,451	1,828	273	546	1,175	342	. .	7,033
Total, houses	289,627	230,420	133,927	63,260	133,276	25,522	8,901	29,938	914,871
Flats	118,351	90,085	19,445	9,450	22,406	2,619	4,261	645	267,262
Total, houses and flats	*407,978*	*320,505*	*153,372*	*72,710*	*155,682*	*28,141*	*13,162*	*30,583*	*1,182,133*
Hotels, hostels, etc.	15,070	6,490	11,903	3,087	11,417	1,513	2,257	3,717	55,454
Shops	23,543	21,284	17,965	7,624	4,052	1,103	480	1,270	77,321
Factories	81,513	56,137	17,599	8,149	15,845	8,722	1,508	1,047	190,520
Offices	52,923	53,390	8,070	13,515	10,885	4,539	1,949	12,920	158,191
Other business premises	27,441	21,370	17,679	12,299	12,574	3,019	1,877	2,564	98,823
Education	53,418	42,029	18,943	13,056	14,122	3,853	994	14,987	161,402
Religious	4,107	3,188	4,196	661	1,644	316	240	1,780	16,132
Health	13,131	10,352	2,905	19,923	7,373	2,251	145	120	56,200
Entertainment and recreation	20,639	9,714	4,170	2,271	3,848	507	214	561	41,924
Miscellaneous	21,741	33,667	14,462	3,417	17,391	2,984	3,100	1,799	98,561
Total, other buildings	*313,526*	*257,621*	*117,892*	*84,002*	*99,152*	*28,807*	*12,764*	*40,765*	*954,529*
Total, new buildings	**721,504**	**578,126**	**271,264**	**156,712**	**254,833**	**56,948**	**25,926**	**71,348**	**2,136,661**

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE AUSTRALIA, 1964-65 TO 1968-69

($'000)

Type of building	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Houses—					
Brick, brick veneer, concrete and stone	461,528	490,492	537,653	598,159	705,906
Wood (weatherboard, etc.)	100,948	89,318	85,471	89,686	85,903
Fibro-cement	99,474	99,078	103,542	109,414	116,030
Other	3,772	5,005	8,230	6,603	7,033
Total, houses	665,722	683,893	734,896	803,864	914,871
Flats	157,270	185,997	179,891	218,894	267,262
Total, houses and flats	*822,992*	*869,890*	*914,787*	*1,022,758*	*1,182,133*
Hotels, hostels, etc.	29,074	31,279	51,145	47,898	55,454
Shops	46,366	68,396	76,462	60,239	77,321
Factories	152,638	167,867	164,588	162,186	190,520
Offices	116,826	103,867	144,245	169,841	158,191
Other business premises	68,110	66,832	76,136	73,416	98,823
Education	95,336	141,566	128,492	144,998	161,402
Religious	16,572	15,001	14,124	13,145	16,132
Health	43,740	54,460	51,106	49,703	56,200
Entertainment and recreation	31,282	28,797	42,309	33,942	41,924
Miscellaneous	43,472	59,752	70,002	87,561	98,561
Total, other buildings	*643,416*	*737,817*	*818,609*	*842,927*	*954,529*
Total, new buildings	**1,466,408**	**1,607,707**	**1,733,396**	**1,865,684**	**2,136,661**

The following table shows the value of *all new buildings completed* in Australia during the years 1966–67 to 1968–69, classified by *type of building and private and government ownership.*

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING AND OWNERSHIP: VALUE AUSTRALIA, 1966-67 TO 1968-69
($'000)

	Private			*Government*		
Type of building	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Houses—						
Brick, brick veneer, concrete and stone	484,364	553,158	658,525	53,289	45,002	47,381
Wood (weatherboard, etc.)	75,032	75,857	71,456	10,439	13,829	14,446
Fibro-cement	71,220	77,138	84,469	32,322	32,276	31,560
Other	5,493	4,588	5,262	2,737	2,014	1,772
Total, houses	636,109	710,741	819,709	98,787	93,122	95,161
Flats	165,670	198,989	249,369	14,221	19,905	17,895
Total, houses and flats	*801,779*	*909,731*	*1,069,079*	*113,008*	*113,027*	*113,056*
Hotels, hostels, etc.	36,447	45,472	45,287	14,698	2,426	10,167
Shops	75,334	59,624	76,447	1,128	615	875
Factories	147,060	151,072	163,043	17,528	11,114	27,480
Offices	82,820	105,357	106,440	61,425	64,485	51,751
Other business premises	46,163	47,316	63,528	29,973	26,100	35,293
Education	31,685	24,902	24,375	96,807	120,097	137,025
Religious	14,124	13,145	16,132	..	..	..
Health	10,471	7,624	10,917	40,635	42,079	45,285
Entertainment and recreation	23,698	27,703	32,017	18,611	6,239	9,907
Miscellaneous	24,546	26,637	30,415	45,456	60,924	68,145
Total, other buildings	*492,348*	*508,848*	*568,603*	*326,261*	*334,079*	*385,925*
Total, new buildings	**1,294,127**	**1,418,579**	**1,637,680**	**439,269**	**447,105**	**498,980**

Value of building approved

The following table shows the values of approvals for houses and flats, other new buildings, and alterations and additions in Australia for the years 1964–65 to 1968–69. Before 1 July 1966 additions of $10,000 and over were included with new buildings in all States except New South Wales, where they were included in 'alterations and additions'. *From 1 July 1966 alterations and or additions of $10,000 and over are included with new buildings in all States.*

BUILDING APPROVED: VALUE, AUSTRALIA, 1964-65 TO 1968-69
($'000)

Type of building	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Houses and flats	886,324	836,861	953,587	1,099,733	1,314,645
Other new buildings	692,526	702,719	768,875	908,708	917,620
Total, new buildings	*1,578,850*	*1,539,580*	*1,722,462*	*2,008,441*	*2,232,265*
Alterations and additions	212,580	195,182	134,805	143,436	156,096
Total, building	**1,791,430**	**1,734,762**	**1,857,267**	**2,151,877**	**2,388,361**
Private	1,380,326	1,314,673	1,397,455	1,614,157	1,902,675
Government	411,104	420,089	459,812	537,720	485,686

Persons working on jobs carried out by builders of new buildings

The following table shows the number of contractors, sub-contractors and wage earners working on jobs *carried out by builders of new buildings* in each State and Territory at 30 June 1969. It also shows the numbers of these persons classified according to their main building occupations and the type of building on which they were working.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS STATES AND TERRITORIES, 30 JUNE 1969

Including Contractor and Sub-contractor Principals Actually Working on Jobs but Excluding Persons Working on Owner-built Houses

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Contractors	5,193	3,597	2,186	610	697	430	79	290	13,082
Sub-contractors	10,884	11,231	4,305	3,318	3,731	903	354	1,108	35,834
Wage earners	39,832	31,634	19,586	8,091	14,773	4,285	1,229	3,136	122,566
Carpenters	17,953	15,535	11,073	3,067	5,007	2,396	371	1,155	56,557
Bricklayers	7,016	6,394	2,166	2,068	2,954	445	176	589	21,808
Painters	4,562	4,253	2,044	1,034	1,723	465	149	448	14,678
Electricians	3,272	3,005	1,351	680	1,373	316	112	227	10,336
Plumbers	5,282	4,561	2,080	1,096	1,711	381	164	352	15,627
Builders' labourers	7,763	5,867	4,149	1,505	2,978	889	330	603	24,084
Other	10,061	6,847	3,214	2,569	3,455	726	360	1,160	28,392
New houses and flats	27,891	23,669	11,205	6,369	10,896	2,104	937	2,315	85,386
Other new buildings(*a*)	24,036	21,111	13,216	5,363	7,103	3,021	705	1,932	76,487
Repairs and maintenance(*b*)	3,982	1,682	1,656	287	1,202	493	20	287	9,609
Total	**55,909**	**46,462**	**26,077**	**12,019**	**19,201**	**5,618**	**1,662**	**4,534**	**171,482**

(*a*) Includes persons working on alterations and additions carried out by builders of new buildings. (*b*) Carried out by builders of new buildings.

The number of persons in each State and Territory working on jobs *carried out by builders of new buildings* at the end of June of each year 1965 to 1969 is shown in the following table.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS STATES AND TERRITORIES, JUNE 1965 TO 1969

Including Contractor and Sub-contractor Principals Actually Working on Jobs but Excluding Persons Working on Owner-built Houses

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
30 June 1965	54,152	42,995	21,666	15,267	12,636	5,392	992	4,735	157,835
30 „ 1966	50,368	42,305	23,305	13,506	12,348	5,350	863	4,525	152,570
30 „ 1967	46,608	42,931	22,454	12,467	14,505	6,354	1,054	4,474	150,847
28 „ 1968	50,415	45,458	23,709	11,370	16,812	6,129	1,566	4,632	160,091
30 „ 1969	55,909	46,462	26,077	12,019	19,201	5,618	1,662	4,534	171,482

Government activities in the housing field

Housing Agreements between Commonwealth and State Governments

Under the Commonwealth-State Housing Agreements the Commonwealth Government makes substantial long-term loans to the States for the provisions of housing.

The 1945 Agreement. In November 1945 the Commonwealth Government entered into an Agreement with the Governments of the States whereby the Commonwealth Government would provide finance for, and the State Governments would undertake the building of, housing projects. Between 1945–46 and 1955–56, under this Agreement, the Commonwealth Government advanced to the States a total of $481,118,000.

Initially, dwellings constructed under the 1945 Agreement were only sold to tenants if the tenant was able to arrange payment of the full purchase price to the State immediately on sale. Subsequent amendments to the Agreement progressively eased conditions of sale. For information on the conditions of sale, etc., under the 1945 Agreement *see* Year Book No. 48, page 367.

The 1956 Agreement. In 1956 the Commonwealth and the States entered into a new Agreement under which added emphasis was placed on the construction of dwellings for private ownership. The Agreement provided that parts of the loans advanced to each State were to be advanced to building societies and other approved institutions for lending to private home builders and purchasers. The balance of the amounts advanced to each State was used by the States for the erection of dwellings for either rental or sale. The Commonwealth was entitled to specify that up to five per cent of the moneys allocated for the erection of dwellings by the State be set aside for the erection of dwellings for serving members of the defence forces. For features of the 1956 Commonwealth and State Housing Agreement *see* Year Book No. 48, pages 367–8.

The 1961 Agreement. The period during which Commonwealth advances to the States could be made under the 1956 Agreement terminated on 30 June 1961. A new Agreement was entered into which extended for a further five years the period during which advances could be made and also amended the 1956 Agreement in certain respects concerning funds for the erection of dwellings for rental to servicemen and the rate of interest payable on Commonwealth advances.

The 1966 Agreement. A new Agreement was entered into which extended for a further five years the period during which advances could be made, and also amended the 1956–1961 Agreement in certain respects concerning the definition of 'member of the forces', the erection by the States of blocks of flats in metropolitan areas, the erection of dwellings for rental to servicemen, and the provision of finance to home builders in rural areas.

For further information regarding the above Agreements *see* Year Book No. 53, pages 276–7.

Operations under the various Housing Agreements

The following tables show the operations under the various Housing Agreements during 1968–69 and to 30 June 1969. The earliest single year for which details are given in the tables is 1964–65; for earlier years *see* Year Book No. 53, pages 278–9.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: SUMMARY, 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
ADVANCES TO STATES ($'000)							
Advances to States(*a*)	45,309	36,038	12,147	19,500	12,394	7,511	132,899
State Housing Programme(*b*)	30,625	24,150	6,475	9,500	8,050	5,250	84,050
Home Builders' Account—							
Advances(*c*)	13,125	10,350	2,775	10,000	3,450	2,250	41,950
Amounts drawn by institutions	18,392	16,144	3,964	11,190	3,760	2,799	56,249
Service Housing Funds allocated by—							
Commonwealth	1,559	1,538	2,897	..	894	11	6,899
States	1,531	1,208	324	..	402	11	3,476
NUMBER OF DWELLINGS							
State Housing Programme—							
Commenced	3,773	2,355	1,478	1,021	1,118	456	10,201
Completed	3,534	2,131	1,345	1,143	936	581	9,670
Under construction at 30 June 1969	2,723	1,945	624	809	787	186	7,074
Home Builders' Account—							
Purchased—							
New	901	640	187	545	119	114	2,506
Other	130	..	..	..	..	78	208
New construction—							
Approved	1,350	897	378	1,185	390	274	4,474
Commenced	1,233	962	365	1,180	414	285	4,439
Completed	1,174	1,442	318	1,146	315	251	4,646
Service Housing—							
Agreed programme	532	228	473	..	115	2	1,350
Completed(*d*)	294	154	557	..	169	2	1,176
Sold under—							
1945 Agreement	403	427	101	14	173	(*e*)..	(*e*)1,118
1956 to 1966 Agreements	1,227	977	327	626	184	526	3,867

(*a*) Includes supplementary advances for Service Housing. (*b*) The maximum amount is 70 per cent of the Commonwealth advances, other than supplementary advances for Service Housing. (*c*) The minimum amount must be 30 per cent of the Commonwealth advances other than supplementary advances for Service Housing. (*d*) Also included in State Housing Programme above. (*e*) Tasmania did not operate under the 1945 Agreement after August 1950.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: ADVANCES TO STATES(*a*) 1964-65 TO 1968-69 AND TO 30 JUNE 1969

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*(*b*)	*Total*
1964–65 . . .	38,132	34,360	8,231	20,500	7,492	6,400	115,115
1965–66 . . .	44,375	33,566	8,950	21,057	8,846	7,448	124,242
1966–67 . . .	43,325	32,960	13,740	20,750	9,478	7,500	127,753
1967–68 . . .	44,610	33,766	12,627	21,000	11,240	6,700	129,943
1968–69 . . .	45,309	36,038	12,147	19,500	12,394	7,511	132,899
Total from 1 July 1945 . .	**619,338**	**530,039**	**165,306**	**230,679**	**155,720**	**78,762**	**1,779,844**

(*a*) Includes supplementary advances (Service Housing) under the 1956 to 1966 Agreements. (*b*) Tasmania withdrew from the 1945 Agreement in August 1950 and repaid all advances made to it.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF DWELLINGS PROVIDED(*a*), STATES, 1964-65 TO 1968-69 AND TO 30 JUNE 1969

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*(*b*)	*Total*
1964–65 . . .	6,342	4,431	1,657	3,637	1,022	895	17,984
1965–66 . . .	6,385	4,248	1,812	3,569	1,435	942	18,391
1966–67 . . .	5,866	5,156	1,738	4,029	1,128	1,025	18,942
1967–68 . . .	6,548	4,739	1,782	3,614	1,290	1,049	19,022
1968–69 . . .	5,739	4,213	1,850	2,834	1,370	1,024	17,030
Total from 1 July 1945(*c*) .	**107,549**	**83,101**	**30,290**	**43,431**	**28,260**	**11,455**	**304,086**

(*a*) The total number of houses and flats completed under State Housing Programmes plus, since 30 June 1956, the numbers completed and purchased under the Home Builders' Account. (*b*) Tasmania withdrew from the 1945 Agreement in August 1950 and repaid all advances made to it. (*c*) Includes some dwellings erected before 1945–46 which the 1945 Agreement applied and also 1,130 dwellings completed in Tasmania up to the time of that State's withdrawal from the 1945 Agreement in August 1950.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF HOUSES SOLD 1964-65 TO 1968-69 AND TO 30 JUNE 1969

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
1964–65 . . .	2,350	2,028	698	812	180	531	6,599
1965–66 . . .	1,919	2,221	501	886	203	464	6,194
1966–67 . . .	1,502	1,859	598	1,002	567	385	5,913
1967–68 . . .	1,872	1,793	504	813	481	520	5,983
1968–69 . . .	1,630	1,404	428	640	357	526	4,985
Total from 1 July 1948 . .	**32,241**	**27,341**	**8,758**	**5,992**	**7,081**	**5,020**	**86,433**

War service homes

The *War Service Homes Act* 1918–1968 makes provision for assistance to be granted to persons who satisfy the eligibility conditions set out in the Act, to enable them to acquire on concessional terms a soundly constructed home that they would occupy as a residence.

Persons eligible for assistance under the Act include members of the Australian forces and nursing services enlisted or appointed for or employed on active service outside Australia or on a ship of war during the 1914–1918 and 1939–1945 Wars and persons who served in the warlike operations in Korea or Malaya or who have served on 'special service' as defined in the *Repatriation (Special Overseas Service) Act* 1962–1968. 'Special service' includes 'special duty' in an area which by reason of warlike operations or a state of disturbance has been declared a 'special area' under the Repatriation (Special Overseas Service) Act. The areas declared as a 'special area' under the Act are:

Vietnam (Southern Zone) from 31 July 1962;
certain areas of Borneo, Sabah and Sarawak from 8 December 1962 to 30 September 1967;
certain areas of Malaya from 28 May 1963;
Malaysia (the remainder) and Singapore from 7 July 1965 to 30 September 1967;
Vietnamese waters from 1 March 1967.

The categories of eligible persons also include the widow and, in some circumstances, the widowed mother of an eligible person and persons domiciled in Australia and employed in certain sea-going service during the 1914–1918 and 1939–1945 Wars.

The maximum amount of loan or advance which may be granted under the *War Service Homes Act* 1918–1968 is $8,000. The period of repayment may be up to forty-five years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of fifty years.

The Director of War Service Homes is responsible for the execution of the War Service Homes Act subject to the directions of the Minister for Housing.

Operations under the War Service Homes Act

The following tables give details of the operations under the War Service Homes Act in the year 1968–69 and from the inception of the scheme on 6 March 1919 to 30 June 1969. The earliest single year for which details are given in the tables is 1964–65; for earlier years *see* previous issues of the Year Book. The figures shown include operations in the Territories of Papua, New Guinea and Norfolk Island.

WAR SERVICE HOMES ACT: OPERATIONS, AUSTRALIA, 1968–69 AND TO 30 JUNE 1969

		1968–69			*From inception to 30 June 1969*		
		Eligibility established from service in—			*Eligibility established from service in—*		
		1914–18 War	*1939–45 War, Korea, etc. (a)*	*Total*	*1914–18 War*	*1939–45 War, Korea, etc. (a)*	*Total*
Applications received	No.	396	10,319	10,715	118,114	410,089	528,203
Applications approved	,,	276	6,926	7,202	57,884	245,627	303,511
Homes purchased	,,	192	4,476	4,668	19,952	127,833	147,785
Homes built, or assistance given to build them	,,	13	754	767	24,118	69,067	93,185
Mortgages discharged	,,	29	1,076	1,105	4,254	32,606	36,860
Total homes provided	,,	*234*	*6,306*	*6,540*	*48,324*	*229,506*	*277,830*
Transfers and resales	,,	42	522	564	9,579	14,583	24,162
Total capital expenditure	$'000	n.a.	n.a.	50,191	n.a.	n.a.	1,310,750
Total receipts	,,	n.a.	n.a.	72,622	n.a.	n.a.	838,126

(*a*) Korea, Singapore, Malaysia or Vietnam (Southern Zone) and Vietnamese waters.

WAR SERVICE HOMES ACT: OPERATIONS, AUSTRALIA 1964–65 TO 1968–69

	Number of—						
		Homes provided					
Year	*Applications received*	*Homes purchased (a)*	*Homes built(b)*	*Mortgages discharged*	*Total*	*Total capital expenditure*	*Total receipts*
						$'000	$'000
1964–65	12,381	6,727	1,398	1,551	9,676	70,104	60,866
1965–66	10,841	7,252	1,143	1,452	9,847	70,010	62,166
1966–67	10,160	6,007	1,070	1,304	8,381	59,123	67,050
1967–68	9,664	4,483	807	1,162	6,452	46,019	69,165
1968–69	10,715	4,668	767	1,105	6,540	50,191	72,622

(*a*) Homes purchased with assistance under the War Service Homes Act. (*b*) Or assistance given to build a home.

WAR SERVICE HOMES ACT: ADVANCES FOR HOUSING AND NUMBER OF HOMES PROVIDED, STATES AND TERRITORIES, 1964-65 TO 1968-69

Period or date	*N.S.W.* (*a*)	*Vic.*	*Qld* (*b*)	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
TOTAL CAPITAL ADVANCED DURING YEAR ($'000)									
1964–65 .	27,680	19,874	8,540	5,510	6,500	1,486	2	512	70,104
1965–66 .	27,052	19,716	9,667	6,172	5,310	1,562	28	503	70,010
1966–67 .	25,153	15,350	8,430	4,113	4,500	1,170	37	370	59,123
1967–68 .	19,635	11,346	6,800	2,997	3,520	1,195	3	523	46,019
1968–69 .	19,000	14,000	7,908	3,468	3,750	1,350	2	713	50,191
NUMBER OF SECURITIES IN FORCE									
At end of June—									
1965 .	58,899	52,493	22,698	16,008	18,348	3,889	51	927	173,313
1966 .	61,050	53,839	23,397	16,457	18,579	4,005	52	975	178,354
1967 .	63,011	54,434	23,894	16,583	18,555	4,035	54	998	181,564
1968 .	63,840	54,453	24,279	16,581	18,530	4,066	50	1,051	182,850
1969 .	64,319	54,682	24,642	16,598	18,194	4,124	46	1,103	183,708
VALUE OF ADVANCES OUTSTANDING ($'000)									
At end of June—									
1965 .	297,244	244,726	95,076	70,564	86,458	17,798	(*c*)	(*d*)	811,866
1966 .	313,915	255,695	100,938	74,117	88,513	18,684	(*c*)	(*d*)	851,862
1967 .	327,969	260,617	105,308	75,402	89,064	19,025	(*c*)	(*d*)	877,385
1968 .	335,040	261,680	108,139	75,476	88,508	19,277	(*c*)	(*d*)	888,120
1969 .	340,331	264,336	111,744	75,916	87,421	19,791	(*c*)	(*d*)	899,539
NUMBER OF HOMES PROVIDED									
1964–65 .	3,901	2,670	1,184	752	885	216	..	68	9,676
1965–66 .	3,812	2,799	1,350	856	727	229	4	70	9,847
1966–67 .	3,654	2,164	1,145	575	615	171	5	52	8,381
1967–68 .	2,761	1,564	974	419	487	171	1	75	6,452
1968–69 .	2,492	1,820	1,025	451	486	178	..	88	6,540

(*a*) Includes Norfolk Island. (*b*) Includes Territories of Papua and New Guinea. (*c*) Included in South Australia. (*d*) Included in New South Wales.

In addition to the homes provided under the War Service Homes Act and shown above, 2,554 homes, which had been provided originally under the Housing Agreements with the States, have been taken over in accordance with those Agreements.

Home Savings Grant Scheme

The administration of the Home Savings Grant Scheme is a function of the Commonwealth Department of Housing. The purpose of the Scheme is to assist young married persons, and young widowed persons with dependent children, to purchase or build their own homes. A further objective is to increase the proportion of total private savings available for housing purposes by encouraging young people to save with those institutions which provide the bulk of long-term housing finance. The Scheme is governed by the *Homes Savings Grant Act* 1964–1967. The Act authorises the payment of grants from the National Welfare Fund.

The Scheme provides for the payment of grants of $1 for every $3 saved by eligible persons under 36 years of age for the first home they own after marriage. The savings must be made over a period of at least three years and held in an approved form. The maximum grant to a married couple, or to husband or wife if only one is eligible, or to a widowed person, is $500 on savings of $1,500 or more. Smaller grants down to a minimum of $10 are payable on lesser amounts saved. To be eligible for the grant, a person must be married, or widowed with one or more dependent children, and must have—or must be married to a person who has—entered into a contract to buy a home or have one built, or begun to build a home as an owner-builder. The person must be under 36 years of age at the time of marriage and at the date of the contract to buy or build or the date building began, must have either been an Australian citizen or lived in Australia during the three years immediately preceding that date, and must also have saved in Australia in an approved form throughout that period. Those three years are known as the applicant's 'savings years'. The grant is payable in respect of existing homes and homes being built. Flats and home-units may also be eligible provided separate title can be obtained. The value of the home, including the land, the house itself and any other improvements, must not exceed $15,000, or $14,000 if the contract to buy or build the home was made, or the building of the home as an owner-builder began, before 28 November 1966. Most homes are eligible, the main exception being homes purchased from State housing authorities which have been built with money advanced by the Commonwealth under the Commonwealth-State Housing Agreement at concessional rates of interest.

The main forms of savings acceptable under the Scheme are Home Savings Accounts with savings banks, fixed deposits with trading banks designated as Home Savings Accounts, and deposits with or shares in registered building or co-operative housing societies. Savings spent in connection with the purchase or construction of the home prior to the date of the contract to buy or build the home, or the date building began, are also acceptable. In addition, savings in certain other forms up to 31 December 1964 were acceptable up to 31 December 1967. These forms were accounts with savings and trading banks other than Home Savings Accounts, and deposits with registered friendly societies and credit unions. However, all new and additional savings after 1 January 1965 must be in one or more of the forms mentioned earlier to be acceptable. The amount of savings that qualify for a grant is the sum of the amounts saved, in acceptable forms, in each savings year. However, the limit on the amount of savings in any savings year that can qualify for a grant is $1,120 for savings years commencing before 1 January 1965, $500 for savings years commencing on or after 1 January 1965, and $600 for savings years commencing on or after 1 May 1966.

Full details of the Scheme are set out in the official pamphlet *A Grant for Your Home* available from banks, building and housing societies, post offices, and offices of the Commonwealth Department of Housing throughout Australia. Additional statistical information is contained in the Annual Reports by the Secretary, Department of Housing, on the *Homes Savings Grant Act* 1964–1967, which are available from the Government Printer, Canberra.

Operations under the Home Savings Grant Scheme

Particulars of applications received and approved during 1968–69 and during the period from 20 July 1964, when the scheme commenced to operate, to 30 June 1969 are set out below.

HOME SAVINGS GRANT SCHEME: OPERATIONS, STATES AND TERRITORIES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.(a)*	*W.A.*	*Tas.*	*A.C.T. (b)*	*Aust.*
Applications received . .	No.	11,377	11,685	5,061	3,187	2,045	796	334	34,485
Applications approved(*c*) . .	,,	10,121	9,948	4,784	2,864	1,867	755	291	30,630
Grants approved . . .	$'000	4,216	4,233	1,925	1,167	751	298	114	12,704
Average grant approved . .	$	417	426	402	407	402	395	393	415
Expenditure from National Welfare Fund	$'000	4,324	4,378	1,950	1,180	760	305	118	13,015

(*a*) Includes Northern Territory. (*b*) Includes Municipality of Queanbeyan, N.S.W. (*c*) Includes applications received on or before 30 June 1967 and approved after that date.

HOME SAVINGS GRANT SCHEME: OPERATIONS, 1964-65 TO 1968-69 AND TO 30 JUNE 1969

Year	*Applications received*	*Applications approved*	*Grants approved*	*Average grant approved*	*Expenditure from National Welfare Fund*
			$'000	$	$'000
1964–65	35,283	25,079	11,510	458	11,349
1965–66	29,021	29,647	13,348	450	13,346
1966–67	30,829	27,768	11,987	432	11,885
1967–68	34,412	32,518	13,446	414	13,299
1968–69	34,485	30,630	12,704	415	13,015
Total from 20 July 1964 .	**164,030**	**145,642**	**62,995**	**433**	**62,894**

Homes qualifying for grants

The two following tables contain particulars of homes in respect of which grants were approved during 1968–69. As grants are payable only to persons under 36 years of age and in respect of homes costing no more than $15,000 (or $14,000 if acquired before 28 November 1966), these statistics should not be regarded as being applicable to home owners in general.

HOME SAVINGS GRANT APPLICATIONS APPROVED: MANNER OF ACQUISITION TOTAL VALUE, AND AVERAGE VALUE OF HOMES (INCLUDING LAND) STATES AND TERRITORIES, 1968-69

	Purchase of house(a)			*Purchase of flat or home unit*			*Home built under contract*		
State or Territory	*Number of approvals*	*Total value(b)*	*Average value(b)*	*Number of approvals*	*Total value(b)*	*Average value(b)*	*Number of approvals*	*Total value(c)*	*Average value(c)*
		$'000	$		$'000	$		$'000	$
New South Wales	6,079	66,302	10,907	183	2,105	11,502	3,528	42,207	11,963
Victoria	5,743	63,983	11,141	59	639	10,838	3,729	46,102	12,363
Queensland	2,550	23,463	9,201	6	64	10,589	1,968	20,821	10,580
South Australia(*d*)	1,685	17,230	10,225	6	55	9,221	1,110	12,852	11,578
Western Australia	1,010	11,208	11,097	1	9	9,500	792	9,825	12,405
Tasmania	440	4,237	9,629	2	23	11,450	212	2,386	11,255
Australian Capital Territory(*e*)	177	2,377	13,429	..	..	..	92	1,276	13,868
Australia	**17,684**	**188,799**	**10,676**	**257**	**2,895**	**11,267**	**11,431**	**135,468**	**11,851**

	Owner-built home			*All homes*		
State or Territory	*Number of approvals*	*Total value(f)*	*Average value(f)*	*Number of approvals*	*Total value*	*Average value*
		$'000	$		$'000	$
New South Wales	331	3,711	11,211	10,121	114,325	11,296
Victoria	417	4,716	11,311	9,948	115,440	11,604
Queensland	260	2,744	10,555	4,784	47,091	9,844
South Australia(*d*)	63	697	11,059	2,864	30,833	10,766
Western Australia	64	803	12,545	1,867	21,845	11,701
Tasmania	101	1,139	11,278	755	7,785	10,311
Australian Capital Territory(*e*)	22	276	12,532	291	3,928	13,500
Australia	**1,258**	**14,086**	**11,197**	**30,630**	**341,248**	**11,141**

(*a*) Includes previously occupied houses. (*b*) Usually based on the purchase price. (*c*) Usually based on the cost of the land and the contract price of the dwelling. (*d*) Includes Northern Territory. (*e*) Includes Municipality of Queanbeyan, N.S.W. (*f*) Usually based on the cost of the land and the assessed value of the dwelling.

HOME SAVINGS GRANT APPLICATIONS APPROVED: METHOD OF FINANCING HOMES AND AVERAGE MORTGAGE LOANS, STATES AND TERRITORIES, 1968–69

	Method of financing homes					
State or Territory	*With first mortgage loan and without second mortgage loan*	*With first and second mortgage loans*	*Others(a)*	*Total*	*Average first mortgage loan(b)*	*Average second mortgage loan*
	number	number	number	number	$	$
New South Wales	8,514	1,336	271	10,121	7,705	1,928
Victoria	8,109	1,260	579	9,948	7,894	1,646
Queensland	4,193	429	162	4,784	7,177	1,727
South Australia(*c*)	1,908	827	129	2,864	7,652	1,837
Western Australia	1,227	453	187	1,867	8,131	1,916
Tasmania	609	98	48	755	7,530	1,624
Australian Capital Territory(*d*)	71	220	..	291	7,704	3,469
Australia	**24,631**	**4,623**	**1,376**	**30,630**	**7,698**	**1,882**

(*a*) Homes financed without mortgage loan. Includes homes financed from the applicants' own resources only, with personal or unsecured loans, purchased under a terms contract of sale, etc. (*b*) Includes homes financed with and without second mortgage loans. (*c*) Includes Northern Territory. (*d*) Includes Municipality of Queanbeyan, N.S.W.

Housing loans insurance scheme

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act* 1965 to insure approved lenders against losses arising from the making of housing loans. The main purpose of the activities of the Corporation is to assist people to borrow, as a single loan at a reasonable rate of interest, the money they need and can afford to repay to obtain a home suited to their requirements.

The Corporation will insure loans of up to $30,000. The maximum loan to valuation ratio is 95 per cent for loans up to $15,000 for the purchase or construction of houses. For new loans the maximum is 90 per cent. A once-and-for-all premium of 1½ per cent of the amount of the loan is charged by the Corporation for the insurance of loans representing 80 per cent or more of valuation. The premium rate falls to a minimum of 0.5 per cent on loans of less than 71 per cent of valuation. The premium normally is payable by the borrower, but lenders may agree to add it to the amount of the loan for repayment by the borrower over the duration of the loan. The maximum rate of interest that may be charged on insured loans is 7¾ per cent (February 1970) per annum and the maximum period for repayment is forty years. The maximum rate of interest is kept under continuing review and may be varied by the Corporation, with the concurrence of the Minister for Housing, whenever changes appear to be warranted by movements in interest rates generally or by other developments.

The Corporation insures loans that are made for a wide range of purposes in addition to the purchase or construction of a dwelling. The other purposes include alterations, extensions or improvements to a dwelling, and the provision or improvement of roads, kerbing and footpaths. An insured loan may be made only by an approved lender. Approved lenders are appointed by the Corporation from within approved classes of lenders specified by the Minister for Housing. The approved classes include banks, housing and building societies, friendly societies, life and general insurance companies, trustee companies, superannuation and other retirement funds, mortgage management companies and solicitors. The Corporation commenced its operations in November 1965. At the end of December 1969 the face value of insurances current amounted to $343 million.

State housing authorities

The following paragraphs describe briefly the organisation of the various State housing authorities and their activities in the fields of home construction and provision of homes on a rental basis (*see* pages 221–3 for their financial advances to persons wishing to purchase or build a home). For summarised figures of total government construction of houses and flats, *see* pages 200–1, and 204–5. For a fuller description of the activities of State housing authorities and their financial advances to home purchasers or builders *see* Year Book No. 53, pages 283–91.

New South Wales—The Housing Commission of New South Wales. The Housing Commission of New South Wales was constituted in 1942, its principal function being the provision of low-cost housing for rental or sale to persons in the lower or moderate income groups.

Advances from the Commonwealth have provided most of the Housing Commission's capital funds and by 30 June 1969 had aggregated $497,245,606 of which $54,662,144 had been repaid. Other net funds of the Commission at 30 June 1969 comprised repayable advances from the State, $15,750,001, public loans raised by the Commission, $1,000,000, grants from the State, $16,813,740 (including $8,741,844 from consolidated revenue and $8,000,000 from taxes on poker machines), provision for maintenance of properties, $5,127,821, and accumulated surplus, $35,595,595. In addition, the Commission owed $5,667,709 to creditors, mainly for purchase of land and work-in-progress. These funds were represented by fixed assets, $514,059,086 (including $165,280,737 debtors for purchase of homes) and current assets, $8,479,242. In 1968 69, the Commission's income was $35,172,216 (including rent $24,661,370 and interest $8,244,140), expenditure $33,517,643 (interest, $16,363,078), and capital expenditure (including construction of houses for sale on rental purchase terms) $35,301,000.

Most of the permanent dwellings provided by the Commission have been erected under the Commonwealth-State Housing Agreements. In 1968–69, 4,277 houses and flats, valued at $27,432,000, were completed for the Housing Commission by private builders on contract to the Commission.

Upon request by other State Departments the Housing Commission will erect houses for employees of those Departments, the Departments providing the necessary lands and funds. In addition, the Commission erects (with State funds) dwellings for employees of industries connected with decentralisation and development. Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units, since October 1969, are approximately $2.50 a week for elderly single persons and $3.75 a week for elderly couples, and 4,550 units had been completed at 30 June 1969.

Applicants for Commission housing may elect either to purchase or to rent the dwelling allocated to them. Terms of sale provide for a minimum deposit of $100 with repayments spread over a maximum period of forty-five years. Further, those tenants who originally elect to rent may subsequently purchase the dwellings occupied by them on similar terms. Applicants may also apply to have a standard type of dwelling erected on their own block of land.

Victoria—Housing Commission, Victoria. The Housing Commission, Victoria, was set up in 1938 as a result of the Housing Act of the previous year. The objects of the Commission as now laid down are the improvement of existing housing conditions; the provision of suitable rental housing for persons displaced by slum reclamation or living under unsatisfactory conditions, and for other eligible persons; the sale of houses to eligible persons and the making of advances to such persons to enable them to own their homes; the development of land for housing and related purposes; and the responsibility of maintaining housing standards. Since the signing of the 1945 Commonwealth-State Housing Agreement the construction of dwellings has been financed by the Commonwealth Government and Commission Funds.

At 30 June 1969 the Housing Commission had completed 1,328 dwelling units under the State Housing Scheme, and 62,823 dwelling units under Commonwealth-State Agreements. Specially designed dwelling units are erected by the Commission to provide dwellings for elderly persons at rentals within their means. To 30 June 1969, 3,782 units had been completed.

Queensland—The Queensland Housing Commission. The Queensland Housing Commission was established in 1945 to assist in meeting the housing shortage. In addition, the Commission was empowered to build houses itself, either for sale or for rental.

The Housing Commission finances its operations through two Treasury Trust Funds—the Queensland Housing Commission Fund and the Commonwealth-State Housing Fund. In addition, a Home Builders' Deposit Trust Fund is available to assist eligible persons to accumulate money to acquire land and erect a Commission dwelling thereon, or to purchase a dwelling under contract of sale conditions. Total disbursements by the Commission for the year 1968–69 amounted to $32,318,877, representing $8,368,740 from the Queensland Housing Commission Fund and $23,950,137 from the Commonwealth-State Housing Fund, while the Home Builders' Deposit Fund had a balance of nil at 30 June 1969.

During 1968–69 the Commission completed 1,678 house units, bringing the total completions under all schemes since the revival of housing construction in 1944–45 to 38,283. Of this number, 22,590 houses, or 59.0 per cent, were for home ownership, and 15,693, or 41.0 per cent, were for rental.

In the field of rental housing the Commission administers and acts as the constructing authority under the Commonwealth-State Housing Agreements. Operating under the provisions of '*The State Housing Acts*, 1945 *to* 1966' the Commission, through its scheme of workers' dwellings, makes advances for the construction of dwellings to eligible persons who own a suitable building site. The number of workers' dwellings completed during 1968–69 amounted to 249, making a total of 30,626 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees. The Commission has power to sell houses under contract of sale conditions. Contract of sale agreements were made to purchase 517 of the Commission's houses during 1968–69.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust operates under the South Australian Housing Trust Act, 1936–1965 and the Housing Improvements Act, 1940–1966 for the purpose of providing houses for families of limited means. Houses are built for both rental and sale, and to 30 June 1969, 66,381 had been completed throughout the State, of which some 35,011 had been built and sold under various schemes. At 30 June 1969 the rents of five-roomed (i.e. three bedrooms) double-unit houses ranged from $7.00 a week for houses of an older type to $9.50 a week for houses then being completed. Single unit rents ranged between $5.50 and $14.50. Two- and three-storey groups of flats with weekly rentals ranging from $8.75 to $15.50 per flat have been built in the Metropolitan Area and at Elizabeth; 1,246 of these flats have been completed in the Metropolitan Area and 220 at Elizabeth. In 1953 the Trust began building cottage or pensioner flats for elderly people. At 30 June 1969 it had built 995 cottage flats from its own resources and an additional 665 for charitable and non-profit organisations. As an agent for the South Australian Government, the Trust also constructs houses in country areas for married couples of limited means. Rents charged in these cases are below economic rents.

During 1962–63 the Trust commenced construction of rental-purchase houses. The aim of this scheme is to provide less expensive houses for the lower income groups. It is expected that such houses will, to some extent, replace double-unit type rental houses. The Trust has also undertaken the construction of houses for various State Government Departments which require to house staff in country districts. In addition, 198 houses in country areas have been built for the State Department of Aboriginal Affairs. The letting of these houses to selected Aboriginal families is administered by the Department. In order to assist primary producers the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting pre-fabricated houses to the site.

Western Australia—State Housing Commission of Western Australia. The activities of the State Housing Commission extend throughout the whole State and, in addition to construction of houses and flats under the State Housing Act and Commonwealth-State Housing Agreements, include:

The management as agent of the Commonwealth War Service Homes Scheme in Western Australia;
Construction of houses for other Government Departments (both Commonwealth and State) in Western Australia;
Construction and maintenance of houses for the Government Employees Housing Authority.

At 30 June 1969, the Commission had completed under all schemes since 30 June 1944, a total of 48,017 units of houses and flats throughout the State.

During the twelve months ended 30 June 1969, 1,863 houses and flats were completed: metropolitan area, 1,186; country, 553; and north of 26th parallel, 124; and a further 1,870 units were under construction.

To conserve land resources and to make the most economical use of available facilities such as sewerage, water, and power, the Commission has programmed construction in the metropolitan region to include flats and terrace houses, in addition to individual homes.

At 30 June 1969, medium density accommodation valued at $13,500,000 (representing 1,569 units) was either under construction or out to tender throughout the metropolitan region.

The greatly increased rate of construction in recent years has created a high demand for serviced building sites, particularly in the metropolitan area, with a consequential rise in land prices.

Despite the high rate of home construction and the ready availability of private project-built homes for purchase, the demand—particularly from the lower income groups—continues to be high. A large proportion of this demand is directed to the State Housing Commission.

Under the provisions of the Commonwealth-State Housing Agreement, 30 per cent of the loan funds is made available each year to building societies. At 30 June 1969, it was estimated that at least 22,000 homes were being purchased with the assistance of building society finance, and the assets of all societies approximated $130 million. Currently, fifteen permanent societies and 246 terminating societies are operating.

Complementing the activities of the building societies, is the Housing Loan Guarantee Act, which provides means for financial institutions to make large-scale loans to lending institutions with full security by way of a 100 per cent guarantee. The Act was introduced in 1957 and with subsequent amendments, now enables lending institutions to make high ratio advances to families of low and moderate means without any additional charge. The interest rate charged may not exceed 6¾ per cent per annum reducible. The maximum loan permitted is $10,000 in metropolitan and country areas, and $13,000 in areas north of the 26th parallel; and the value of the house, excluding land, must not exceed $10,000 in the metropolitan area; $11,000 in country areas; and $17,500 in areas north of the 26th parallel.

Tasmania—The Housing Department. The Housing Department was established in July 1953 and is responsible for administering that portion of the *Homes Act* 1935 which relates to the acquisition and development of land for housing purposes and the erection of homes for rental and ultimate sale, and the *Casual Workers' and Unemployed Persons' Homes Act* 1936.

During 1968-69, 638 dwellings were completed. Construction since 1944 has comprised 11,464 dwelling units, of which 10,886 were single units (9,020 of timber), 260 were elderly persons' flatettes, 22 were maisonettes, and 296 were multi-unit flats.

Flats, maisonettes and elderly person's homes are for rental only. Single unit dwellings are normally allotted on a purchase contract basis, but in some special cases may be occupied on a rental basis. The rental of a newly erected three-bedroom timber house in the Hobart metropolitan area approximated $15.10 in the June quarter of 1969. In certain necessitous cases rental rebates are allowed. Under the current rental rebate formula a married couple whose only income is the age pension pay $3.80, while a single person solely dependent on the pension pays $2 a week.

Allotments are usually made on a no-deposit purchase contract basis, repayments being over a maximum term of fifty-three years. Purchase contracts are sometimes surrendered to the Department. Net of surrenders, 7,770 purchase contracts had been entered into by June 1969. The sale price, excluding land, of a new three-bedroom house in the Hobart metropolitan area was approximately $9,275 in the June quarter of 1969.

Housing schemes in Commonwealth Territories

Northern Territory. In 1946 control of all government-owned residences in the Territory (excluding those belonging to the Defence Services or Commonwealth Railways, or attached to post offices) was vested in the Administration. The Northern Territory Housing Commission provides rental housing for persons of limited means who are not adequately housed and who are not officers of either the Commonwealth or the Northern Territory Public Service. The Commission was established in 1959 and operates under authority of the *Housing Ordinance* 1959–1968; to 30 June 1969 a total of 1,785 houses and flats had been completed; 1,206 of these are in Darwin (including 326 flats), 381 in Alice Springs (including 51 flats), 91 in Katherine (including 10 flats), and 97 in Tennant Creek (including 9 flats); 6 houses in Pine Creek and 2 each at Elliot and Mataranka. A further 425 houses and 164 flats were under construction.

Australian Capital Territory. The Commonwealth Government provides houses and flats for rental to persons employed in the Australian Capital Territory. At 30 June 1969 the Department of the Interior controlled 8,197 houses and 2,022 flats for rental purposes. Government rental houses may be purchased by tenants. From 1 July 1950 to 30 June 1969, 6,974 houses had been sold to tenants.

Papua and New Guinea. In 1960 the Administration, through the Commissioner for Housing, commenced a scheme for providing low-cost houses for rental and eventual sale, where possible, to indigenes, mixed race peoples and Asians. To 30 June 1969, 601 houses had been completed.

A Housing Commission has been established to improve existing housing conditions, to provide adequate and suitable housing for letting and sale to persons who are of limited means or unsatisfactorily housed, to make advances for home purchase, and to develop land for housing. The *Housing Commission Ordinance* 1967 received the Governor-General's assent on 1 June 1967.

Summary of rental activities of government authorities

The first of the two following tables shows the revenue from rental for dwellings under control of government housing authorities each year from 1964–65 to 1968–69, and the second the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year 1964–65 to 1968–69.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS, STATES AND TERRITORIES, 1964-65 TO 1968-69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld(a)*	*S.A.(b)*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	17,414	13,322	4,732	9,184	5,177	1,266	654	3,493	55,242
1965–66	18,864	13,918	5,459	9,440	5,532	1,344	820	3,708	59,085
1966–67	20,823	15,406	6,181	10,915	6,678	1,522	985	3,853	66,363
1967–68	22,779	16,266	6,702	11,603	7,161	1,761	1,103	3,861	71,236
1968–69	24,661	17,207	7,486	12,506	8,003	1,912	1,261	4,137	77,173

(*a*) Excludes rentals in respect of tenanted temporary dwellings. (*b*) Excludes rentals in respect of temporary and emergency dwellings.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld(a)*	*S.A.(b)*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(c)*	*Aust.*
1964–65	47,102	33,541	12,605	27,113	15,394	3,238	2,166	9,054	150,213
1965–66	50,346	33,995	13,439	27,632	16,639	3,283	2,398	9,073	156,805
1966–67	54,172	35,307	14,046	28,305	17,393	3,451	2,869	9,143	164,686
1967–68	57,643	35,774	14,781	30,012	17,771	3,590	2,824	9,440	171,835
1968–69	60,293	36,403	15,693	31,322	18,340	3,644	2,939	9,904	178,538

(*a*) Excludes tenanted temporary dwellings. (*b*) Excludes temporary and emergency dwellings. (*c*) Number of occupied dwellings at 30 June.

Advances to home purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the State or Commonwealth Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to home purchasers and loans to contract builders, etc. are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on. While figures of all loans to home purchasers are not available, the institutions mentioned account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

State authorities and agencies

New South Wales

Rural Bank of New South Wales—Sale of Homes Agency. A Sale of Homes Agency was established in 1954 to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales. The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954–55 and 1955–56. The sales were made on the basis of 10 per cent deposit and repayment of the balance over a maximum period of forty years, with interest at 4.5 per cent per annum. Total advances under that scheme amounted to $646,648; at 30 June 1969 the advances outstanding amounted to $344,360 in respect of 73 houses.

Since 1956 the Sale of Homes Agency has acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the Commonwealth-State Housing Agreements. The terms of sale provide for a minimum deposit of $100 and repayment of the balance over a maximum period of forty-five years, with interest rates, since the inception of the scheme, ranging from 4.25 to 5.15 per cent per annum. Particulars of the advances made by the Agency in connection with the sale of houses erected under the 1956, 1961, and 1966 Agreements are given in the following table.

RURAL BANK OF NEW SOUTH WALES—SALE OF HOMES AGENCY
ADVANCES FOR HOMES SOLD UNDER THE 1956, 1961 AND 1966
COMMONWEALTH-STATE HOUSING AGREEMENTS
1964-65 TO 1968-69

Year	*Advances during year* Number of houses	*Advances during year* Amount	*Advances outstanding at end of year(a)* Number of houses	*Advances outstanding at end of year(a)* Amount
		$'000		$'000
1964–65	1,777	14,356	16,042	105,648
1965–66	1,486	12,197	17,126	114,154
1966–67	1,073	9,005	17,763	119,077
1967–68	1,444	12,866	18,724	127,288
1968–69	1,227	11,167	19,406	133,363

(*a*) Comprises principal outstanding and loan charges due but not paid.

The Sale of Homes Agency also acts as agent for the Housing Commission in arranging the sale of houses erected by the Commission on applicants' land. Under this scheme persons who have established a housing need may apply to the Commission to have a standard-type dwelling erected on their own land. The houses are sold, at a price equivalent to their capital cost, on the same terms as for houses erected under the 1956–1966 Housing Agreements. Up to 30 June 1969, 525 houses had been built under this scheme at a cost of $3,684,923, the balance of indebtedness at that date was $3,254,949.

Rural Bank of New South Wales—Other loans. The Rural Bank of New South Wales provides assistance to individuals for the erection or purchase of homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The rate of interest on long-term loans for housing purposes is 5.75 per cent per annum.

Victoria

Housing Commission, Victoria. Very few houses were sold by the Commission until 1954. The amendments to the Commonwealth-State Housing Agreement in 1955–56 have had the effect of substantially increasing the number of houses sold. Whereas between 1949 and 1954 only about 100 houses were sold, a total of 26,923 houses were sold on terms to 30 June 1969, the total value of terms sales exceeding $220 million. Until 1964–65, houses were sold on a minimum deposit of $200, but during that year provision was made to sell without deposit in very special circumstances. The maximum repayment term is forty-five years with interest currently at 4½ per cent.

Home Finance Trust. In 1956 a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed ninety-five per cent of the value of the security (house and land) and are not made if the value of the security exceeds $11,600. The house must not have been erected more than two years before the date of mortgage. Repayment of loans may be made over a maximum period of thirty years, with interest charges determined by the Trust. At 30 June 1969, 3,536 loans totalling $23,527,019 were outstanding.

In 1963 the Trust was empowered to make housing loans on the security of second mortgages subject to conditions similar to those applying to the first mortgage loans, except that the maximum term for repayment of a loan is ten years and no restriction is placed on the percentage of loan to valuation. At 30 June 1969, 2,005 second mortgage loans were outstanding, the amount involved being $2,394,310.

(*See* Savings Banks, page 224, for activities of the State Savings Bank of Victoria.)

Queensland

Queensland Housing Commission. The present maximum advance allowable under the Acts is $9,000 for a timber, brick veneer, brick, or concrete building. The rate of interest charged on new advances in 1968–69 was 5½ per cent per annum. Repayment may be made at the option of the borrower over either a thirty year or a forty-five year period.

Workers' dwellings. From 4 October 1962 the maximum advance under this scheme was increased to $7,000 for all types of workers' dwellings. This was increased to $8,000 from 2 June 1966 and to $9,000 from 22 May 1969. Total advances made for dwellings since operations commenced in 1910 to 30 June 1969 amounted to $69,323,932.

South Australia

South Australian Housing Trust Sales Schemes. Prospective purchasers of Housing Trust houses (other than Rental Purchase houses) may purchase either by paying cash or by paying a deposit and arranging for a loan on security of a first mortgage from any of the recognised lending authorities. In cases where the deposit and the first mortgage so raised are insufficient, the Trust may advance the balance of the house price on security of a second mortgage, the term of which is usually coterminous but not exceeding 30 years. The interest rate is 6¾ per cent and the principal is adjusted quarterly. During 1968–69 the Trust commenced 635 second mortgages valued at $1,226,000. At 30 June 1969 second mortgages totalled 9,116 and the balance outstanding at that date was $9,650,000. A minimum deposit of $100 is required for houses built under the Rental Purchase Scheme. The balance of the purchase price is repayable to the Trust in weekly instalments over periods up to 40 years at 5¼ per cent interest.

State Bank of South Australia. The State Bank, together with the Housing Trust, are the principal agents of the State Government for the distribution through the Home Builders' Fund of moneys received under the Commonwealth-State Housing Agreement. During 1968–69 the Bank opened 1,551 new accounts worth $11,469,288 in the Home Builders' Fund. The balance of loans in this Fund outstanding at 30 June 1969 totalled $83,245,156. In addition, during 1968–69, $638,233 was advanced to the public under the Advances for Homes Act, 1928–1958, which is administered by the Bank on behalf of the State Government. Under this Act 98 new accounts were opened during 1968–69, leaving a balance outstanding at 30 June 1969 of $23,662,332. The present maximum housing loan under either of these schemes is $8,000, repayable over a period not exceeding fifty years at a rate of interest of 6 to 6½ per cent per annum calculated on monthly balances.

Western Australia

State Housing Commission of Western Australia. Under the State Housing Act and the Commonwealth-State Housing Agreement the maximum loan is $8,000 by way of mortgage, while under contract of sale the maximum is $6,500 on the building plus the value of the land in the metropolitan area, and greater amounts in rural areas, depending on the circumstances.

To proceed under the mortgage conditions, a deposit of not less than 10 per cent is required, but under contract of sale the deposit may be as low as $200. The interest rate on all advances is 5⅜ per cent per annum and the repayment period is forty-five years. The income eligibility figure varies according to the movement of the basic wage, and currently an applicant in the Metropolitan Area cannot have an income exceeding $2,799 a year, plus $100 for each dependent child under twenty-one years of age. For the country the corresponding amount is $3,311 per annum plus $100 for each dependent child under twenty-one years, and north of the twenty-sixth parallel the Minister may allow families with an income of up to $4,378 plus $100 for each dependent child under twenty-one years of age to be given financial assistance. A second-mortgage scheme exists under the State Housing Act, which provides that assistance be limited to those applicants who are building or purchasing new homes, the cost of which, excluding land, does not exceed $10,000. The Commission limits the second mortgage to a maximum of $2,000.

(*See* Savings Banks, page 225, for activities of the Savings Bank Division of The Rural and Industries Bank of Western Australia).

Tasmania

Housing Department. The interest rate on purchase contract loans from the Housing Department signed after 1 May 1965 is 4¼ per cent. To be eligible for a house on purchase contract terms an applicant must be married or about to be married, or have dependants for whom it is necessary to provide a home. The number of loans outstanding at 30 June 1969 was 7,099, and the amount outstanding $48,940,000.

Agricultural Bank of Tasmania. The Agricultural Bank, as an approved institution under the Commonwealth-State Housing Agreement, receives part of those funds allocated for advances to home builders. To be eligible for a loan an applicant must be married or about to be married, be over the age of twenty-one, and own a block of land. The maximum amount of an advance to an applicant is $8,000 for all types of houses in certain areas, provided that the total advance does not exceed ninety per cent of the Bank's valuation of land and dwelling. Advances to borrowers are repayable by equated instalments over thirty-one years. Advances made as from 1 July 1965 were at an interest rate of 5¾ per cent.

During 1968–69, 338 advances were approved, valued at $1,815,000. Since November 1945 a total of 4,013 loans amounting to $24,105,000 has been approved, of which 3,232 have been for erection of dwellings and 781 for the purchase of existing homes. Total advances outstanding at 30 June 1969 amounted to $17,697,000. These figures exclude advances to building societies.

Commonwealth authorities and Territories

Department of Housing

In December 1963 the Department of Housing was created, and to it were transferred the functions and staff of the War Service Homes Division and the Housing and Building Industry Branch of the Department of National Development. Further details relating to the Department of Housing may be found on page 83 of Year Book No. 50.

War Service Homes

For details of the operations under the War Service Homes Act, *see* pages 212–14.

Northern Territory

Loans Scheme. This scheme was commenced in 1953 and is administered by the Home Finance Trustee under the *Housing Loans Ordinance* 1949–1967. Advances may be made for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. Loans are provided on a deposit of 5 per cent of the first $4,000 and 10 per cent of the balance of the Trustee's valuation up to a maximum of $8,000. The rate of interest charged is 6½ per cent per annum reducible to 5½ per cent per annum if instalment payments are made by the due date. The maximum period of repayment is forty-five years, Up to 30 June 1969, 1,249 loans totalling $7,010,730 had been approved. These were for: erection, 756; purchase, 371; enlargement or completion, 67; discharge of mortgage, 55.

Sales Scheme. Tenants of government-owned houses under the control of the Administration may purchase the dwellings they occupy either for cash or on terms requiring a minimum deposit of 5 per cent of the first $4,000 and 10 per cent of the balance of the purchase price with repayments over a maximum period of forty-five years including interest at 4½ per cent per annum.

Housing Commission Sales Scheme. Since the November 1963 amendment of the *Housing Ordinance* 1959–1968 the Housing Commission has been permitted to sell its houses to tenants in occupation. The terms require a minimum cash deposit of $200 and repayment of the remainder of the loan over a period not exceeding forty-five years; there is no prescribed limit to the amount of the loan and the rate of interest is fixed by the Commission from time to time.

Australian Capital Territory

Loans may be granted by the Commissioner for Housing to enable persons to purchase or build a new house in the Australian Capital Territory. Where the Commissioner's valuation does not exceed $4,000 the maximum loan may not exceed ninety-five per cent of the valuation. If the Commissioner's valuation exceeds $4,000, the maximum loan is ninety-five per cent of the first $4,000 and ninety per cent of the balance (but in no case can the amount lent exceed $8,000). Repayment may be made over a maximum period of forty-five years. The current rate of interest is 6½ per cent per annum with a concession of 1 per cent for payments made on or before the due date. At 30 June 1969, 6,139 houses were under mortgage to the Commissioner.

Government rental houses may be purchased by tenants. The basis of the sale is a minimum deposit of 5 per cent of the purchase price fixed by the Department of the Interior with no limit to the amount which may be held on mortgage from the Department. Repayment of the amount covered by mortgage may be made over a maximum period of forty-five years. The interest rate is 6½ per cent per annum with a concession of 1 per cent for payment made on or before the due date. To 30 June 1969, 6,974 houses had been sold to tenants.

Papua and New Guinea

Under authority of the *Housing Loans Ordinance* 1953–1963 the Commissioner for Housing may make advances to any member of the community for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. The maximum loan is $7,000. The maximum period of repayment is twenty-five years for timber and thirty-five years for brick dwellings. The Commissioners' responsibilities were transferred to the Housing Commission on 1 July 1968. Minimum cash deposit is 5 per cent of the first $4,000 plus 10 per cent of the remainder of the Commissioner's valuation. The effective rate of interest is 5 per cent per annum. Up to 30 June 1969, 472 loans totalling $2,537,535 had been approved.

Savings banks

All savings banks lend funds for housing to both individuals and building societies. Separate figures of loans to individuals are not available for periods prior to 1 July 1969. The amounts outstanding on housing loans of all savings banks (including loans to building societies) were $1,549 million, $1,751 million and $1,961 million at the end of June 1967, 1968 and 1969 respectively. Some details in respect of three savings banks are shown below.

State Savings Bank of Victoria. The Bank grants long-term loans to depositors to enable them to build, purchase or improve homes. These loans are granted by both the Crédit Foncier and Savings Bank Departments.

The maximum proportion of valuation to be granted as Crédit Foncier loan is eighty per cent and the maximum loan is $8,000. Interest is 5½ per cent and the term of the loan is ten years, subject to renewal. The maximum proportion of valuation granted as Savings Bank Department loan is seventy-five per cent and the maximum loan is $12,000. For a property to be occupied by the borrower the interest rate is 6 per cent to 7 per cent, depending on the amount of the loan. The above conditions are those current as at 16 February 1970 but are subject to review and alteration by the Bank at any time. During the year 1968–69 the Bank advanced $69,457,090 to 9,482 borrowers in addition to $96,439 to Co-operative Housing Societies and $300,000 to the Home Finance Trust. At 30 June 1969 the total debt of 68,954 individual borrowers was $361,040,233, while indebtedness of Co-operative Housing Societies and the Home Finance Trust amounted to $13,728,883 and $9,594,037 respectively.

Savings Bank of South Australia. The bank grants mortgage loans for the building or purchase of houses for personal occupation, the maximum loan available being $8,000 for existing houses or $8,500 for houses not previously occupied or those to be erected. Normally advances are made up to 85 per cent of the Bank's valuation in respect of existing houses or 90 per cent in respect of houses not previously occupied or those to be erected but, 95 per cent of such valuation may be advanced (maximum loan, $6,000 or less.) The maximum loan period is thirty years at a rate of interest of 5¾ per cent per annum; this rate is subject to review after one year. During 1968–69 the Bank advanced $15,340,153 by way of housing loans, the number of new loans totalling 2,085. At 30 June 1969 there were 26,462 housing loans current with a balance outstanding of $131,280,060.

Rural and Industries Bank of Western Australia (*Savings Bank Division*). The Rural and Industries Bank of Western Australia is authorised by the *Rural and Industries Bank Act*, 1944–1966 to make loans from moneys on deposit with its Savings Bank Division to a person or body for the purchase or erection of a dwelling. It is the policy of the Bank to provide funds for housing primarily for occupancy by the borrower. There is no fixed limit on the amount of a loan. The average loan in the case of a brick or timber house is $8,700. The rate of interest varies with the current bank rate and is usually ¾ per cent lower. The rate at 30 June 1969 was 6 per cent. Loans may be approved up to 30 years but the average term of housing loans is eighteen years.

The bank undertakes the sub-division and development of land and the erection of homes which are sold under conditions which ensure that the purchasers are genuine home seekers. This activity commenced in May 1967. The number of homes built to 30 June 1969 was 120, whilst another 39 were under construction. Another 72 building lots (under certain restrictions) were made available to project builders for the erection and sale of houses. A further 314 building lots have been auctioned to the public under restrictions designed to favour genuine home seekers.

Trading banks

Apart from loans by certain State banks as Government agencies (*see* pages 221–3) advances for housing to individuals are also provided by the trading banks. Amounts outstanding in respect of advances to individuals for housing purposes made by the major trading banks were $294 million on the second Wednesday of July 1969 (*see* the chapter Private Finance for further details).

Life insurance companies

The life insurance companies are another source of funds for housing. Details of new loans made during the twelve months ended June 1965 to 1969 are given in the following table.

LIFE INSURANCE COMPANIES: HOUSING LOANS PAID OVER STATES AND TERRITORIES, 1963-64 TO 1967-68

State or Territory	*Amount ($'000)*				
	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales	23,073	24,821	22,486	23,729	29,130
Victoria	17,788	17,112	16,843	19,471	22,549
Queensland(*a*)	5,665	5,538	4,856	4,918	6,098
South Australia(*b*)	4,686	4,808	4,371	4,559	5,366
Western Australia	3,561	3,563	4,157	5,331	6,446
Tasmania	1,396	1,526	1,321	1,171	1,530
Australian Capital Territory	827	869	945	631	666
Total	**56,995**	**58,237**	**54,979**	**59,810**	**71,784**

(*a*) Includes loans made in Papua and New Guinea. (*b*) Includes loans made in Northern Territory.

Amounts outstanding at the end of June 1965, 1966, 1967, 1968 and 1969 in respect of housing loans made by insurance companies were $339 million, $356 million, $366 million, $378 million and $398 million respectively.

Registered building societies

There were 4,550 registered building societies operating in Australia during the year ending 30 June 1968 of which 159 are permanent societies and the remainder terminating societies. The permanent societies are in the main investment societies which make loans for housing purposes, usually on crédit foncier terms, and obtain their funds from share capital deposits and borrowings from banks and other lending institutions. The terminating societies are co-operative societies which make loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions, and, since 1956, from moneys provided under the Commonwealth-State Housing Agreements. Details of new loans paid over and net advances outstanding for each of the years ended June 1964 to 1968 are given in the following table (*see also* the chapter Private Finance).

REGISTERED BUILDING SOCIETIES: STATES, 1963-64 TO 1967-68

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
LOANS PAID OVER DURING YEAR ($'000)							
1963–64 . .	72,284	29,106	13,184	3,102	10,430	5,721	133,827
1964–65 . .	82,329	35,848	16,550	3,819	13,091	6,445	158,082
1965–66 . .	90,635	33,137	18,560	3,521	12,611	5,425	163,888
1966–67 . .	112,738	36,492	20,641	4,412	14,031	6,338	194,652
1967–68 . .	142,084	49,456	29,369	5,121	24,436	9,553	260,018
NET ADVANCES OUTSTANDING(*a*) AT END OF YEAR ($'000)							
1963–64 . .	351,841	198,684	55,543	13,967	35,483	17,798	673,316
1964–65 . .	393,343	212,438	64,449	15,790	44,171	21,413	751,605
1965–66 . .	441,676	223,595	74,659	17,239	52,182	23,775	833,128
1966–67 . .	507,093	236,145	85,730	19,470	61,015	26,659	936,112
1967–68 . .	593,438	259,574	103,194	22,388	77,254	32,204	1,088,053

(*a*) Net of borrowing members' funds.

Other lenders

Little information is available on advances made by other lenders such as superannuation and other trust funds, private finance and investment companies, etc. In South Australia advances on first mortgage made by the South Australian Superannuation Fund are granted under the Homes Act, 1941–1968, on a crédit foncier basis, by which the State Government guarantees up to 25 per cent of the value of the mortgage, thus raising the limit of the advance. Loans so made are limited to 95 per cent of the Superannuation Board's valuation to a maximum of $6,000, or 85 per cent of the Board's valuation to a maximum of $8,000. The rate of interest is 6½ per cent per annum, calculated on quarterly balances, reducing to 5¾ per cent when payments are made within a prescribed period of twenty-one days from the end of the quarter. The term of the mortgage may run for thirty years on a stone or brick home or twenty years on a timber-framed construction. Trustee mortgages may be granted as an alternative to the foregoing. A maximum of 70 per cent of the Board's valuation may be granted for a trustee mortgage, other conditions being those applicable to mortgages granted under the Homes Act. At 30 June 1969 there were 5,628 loans current the principal outstanding totalling $25,009,613. During 1968–69 the value of advances made was $1,780,259.

CHAPTER 10

LABOUR, WAGES AND PRICES

For particulars of the Farm Production Price Index, *see* the chapter Miscellaneous. For current information on the subjects dealt with in this chapter, *see* the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the *Quarterly Summary of Australian Statistics*, also the mimeographed statements *Wage Rates and Earnings*, *Consumer Price Index*, *Wholesale Price* (*Basic Materials and Foodstuffs*) *Index*, *Wholesale Price Indexes—Price Index of Electrical Installation Materials*, and *Export Price Index*. For further information on these subjects, except the Export Price Index, *see* the *Labour Report* issued by this Bureau.

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 have been collected by the Commonwealth Statistician, and in some cases were recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923, and comparable information was ascertained for the month of November in each year from 1914 to 1922. The range of items for which retail prices data are obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in current periods are published in the annual *Labour Report*.

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes then current. Previous retail price indexes for Australia are briefly described below. The current retail price index, entitled the Consumer Price Index, was published for the first time in August 1960. It was compiled retrospectively to 1948–49. A description of the Consumer Price Index is given on pages 228–9.

Previous retail price indexes

Five series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were as follows.

(i) *The 'A' Series Index* (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June 1938.

(ii) *The 'B' Series Index* (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December quarter 1953. It was the food and rent constituent of the 'C' Series Index and was designed to replace the 'A' Series Index for general statistical purposes.

(iii) *The 'C' Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, and some other miscellaneous items) was first compiled in 1921. It was last issued on its original basis for December quarter 1960. For certain transitional purposes a 'C' Series Index was issued for some quarters after that. This was calculated by varying the index numbers of December quarter 1960 in proportion to movements shown by the Consumer Price Index.

(iv) *The 'D' Series Index*, derived by combining the 'A' and 'C' Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May 1933 to May 1934 and then discontinued.

(v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some miscellaneous items) was first compiled in 1954 with the year 1952–53 as base = 100. As its title indicated, it was constructed as a transitional index. Its compilation was discontinued following its replacement by the Consumer Price Index in June quarter 1960.

An index of retail price movements from 1901 to 1969 is shown on page 233 of this Year Book. It is derived by linking together successive indexes (the 'A' Series, the 'C' Series and the Consumer Price Index) available for that period.

In 1937 the Commonwealth Court of Conciliation and Arbitration introduced a 'Court' Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court the 'Court' Index ceased to be issued by the Industrial Registrar as at December quarter 1953. These 'Court' Index numbers were an arithmetical conversion of the 'C' Series Retail Price Index.

Consumer Price Index

This retail price index was first compiled in 1960, retrospectively to September quarter 1948. A full description of the index is given in *Labour Report* No. 53, 1967.

Origin

The list of component items and the weighting pattern of the 'C' Series Retail Price Index, first adopted in 1921, were slightly revised by a Conference of Statisticians in 1936, but otherwise continued almost unchanged until the index was discontinued in 1960. The reasons for this and the circumstances which led to the present Consumer Price Index appear from ensuing paragraphs.

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and in the pattern of expenditure. This rendered changes desirable, but made it impracticable either to produce a new index, or to revise the old one, on any basis that would render the index more representative than it already was of the changing pattern of household expenditure in those years.

When commodity rationing had virtually ceased in the latter part of 1948, action was taken by the Statistician to collect price data of about 100 additional items and to gather information about current consumption and expenditure patterns. This was done to facilitate review of the component items and weighting system of the 'C' Series Retail Price Index in the light of the new pattern of wage-earner expenditure and consumption that appeared to be emerging. But there supervened, in the next few years, conditions which caused wide price dispersion coupled with a very rapid rise in prices and a new sequence of changes in consumption and in the pattern of wage-earner expenditure. Under these conditions it was not possible to devise any new weighting pattern likely to be more continuously representative of conditions then current than was the existing 'C' Series Retail Price Index on the 1936 revision.

A Conference of Statisticians considered the matter in June 1953, and resolved (in part) as follows:

'(*a*) that, in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period it is undesirable to make a general revision of the list of items and weighting system of the 'C' Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes;

'(*b*) that an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure.'

The 'C' Series Index continued to be compiled on its pre-war basis without significant change in procedures. The Interim Retail Price Index was introduced in 1954 and continued until March quarter 1960.

The Interim Index was a transitional index designed to measure retail price variations on the 'C' Series model in terms of post-war consumption weights as emerging in the early 1950's. It embraced a wider range of commodities and services than did the 'C' Series Retail Price Index, but it did not take into account successive major changes in the pattern of expenditure and modes of living that began to occur early in 1950 and through to 1960. These changes could not in fact be detected and measured promptly and incorporated into an index concurrently with their happening. Nor was it envisaged as desirable to adopt fundamentally new procedures in price index construction until it was fully evident that far-reaching procedural changes were necessary to meet the situation that had developed between about 1950 and 1960.

In this period home-owning largely replaced house-renting, the use of the motor car greatly increased and partly replaced use of public transport, and various items of electrical household equipment and television came into widespread use. The impact of these (and other) changes in usage upon the pattern of household expenditure was heightened by disparate movements in prices. Together, they rendered nugatory the attempt to meet the situation by devising a single Interim

Retail Price Index. As studies progressed and new data became available it was clear that no single list of items and no single set of fixed weights would be adequately representative as a basis for measuring retail price changes at all times throughout the post-war period. In consequence, the situation was met by compiling the Consumer Price Index constructed as a chain of linked indexes with significant changes in composition and weighting effected at short intervals.

Purpose, scope and composition

The Consumer Price Index is a quarterly measure of variations in retail prices for goods and services representing a high proportion of the expenditure of wage-earner households. The weighting pattern relates to estimated aggregates of wage-earner household expenditures and not to estimated expenditures of an 'average' or individual household of specified size, type, or mode of living. In this way it is possible to give appropriate representation to owner-occupied houses as well as rented houses and to include motor cars, television sets, and other major expenditures which relate to some households and not ot others.

Consumer (retail) price indexes are sometimes loosely called 'cost of living indexes' and are thought to measure changes in the 'cost of living'. Neither the Consumer Price Index nor any other retail price index measures those changes in the cost of living that result directly from changes in the mode or level of living. Changes of that kind are matters for consideration apart from price indexes, but the change in prices of goods and services is a very important part of the change in the cost of living and this part is measured by consumer (retail) price indexes.

The Consumer Price Index covers a wide range of commodities and services arranged in the following five major groups:

Food;
Clothing and drapery;
Housing;
Household supplies and equipment;
Miscellaneous.

These groups do not include every item of household spending. It is both impracticable and unnecessary for them to do so. Prices are collected regularly for specified quantities and qualities of a large and representative selection of commodities and services. Movements in the prices of these items, when combined in suitable proportions, provide a representative measure of price change as affecting a high proportion of the expenditure of wage-earner households.

Structure—a chain of linked indexes

Substantial changes have occurred in consumer usage and patterns of expenditure since the 1939–45 War. In order to keep the weighting pattern representative of current expenditures it has been necessary to construct indexes with additional items and changes in the weighting pattern at intervals, rather than on the basis of a list of items and set of weights that remained unchanged throughout the whole period covered. For the six State capital cities six series for short periods (namely, from the September quarter of 1948 to the June quarter of 1952, from the June quarter of 1952 to the June quarter of 1956, from the June quarter of 1956 to the March quarter of 1960, from the March quarter of 1960 to the December quarter of 1963, from the December quarter of 1963 to the December quarter of 1968, and from the December quarter of 1968 onwards) have therefore been constructed and linked to form a continuous retail price index series known as the Consumer Price Index. (For information regarding these links for Canberra *see Labour Report* No. 53, 1967.)

During each period between links the items and weighting remained unchanged. At times of linking the weighting pattern was altered, and new items (mainly ones that had become significant in household expenditure) were introduced. Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the index.

Tabular statements of retail price index numbers

Consumer Price Index

The index has been compiled for each quarter from September quarter 1948 and for each year from 1948–49. 'All Groups' index numbers and 'Group' index numbers for each of the five major groups are compiled and published regularly for the six State capital cities combined and separately and for Canberra. The reference base for each of these indexes is: year 1966–67 = 100.0. Prior to March quarter 1969, all indexes were published on the base: 1952–53 = 100.0. For further details *see Labour Report* No. 53, 1967. Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

Index numbers for each quarter are first issued in mimeographed statistical bulletins available from the Commonwealth Statistician about three weeks after the end of the quarter. These bulletins contain comment on the index and on significant price movements in that quarter. Tables showing index numbers for preceding quarters and years are presented.

The following table shows Consumer Price Index Numbers (Total all groups) for the six State capital cities combined and separately and for Canberra, for periods from the year 1952–53.

CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS SIX STATE CAPITAL CITIES AND CANBERRA, YEARS 1952-53 TO 1968-69 AND QUARTERS MARCH 1967 TO DECEMBER 1969

(*Base of each index: year* 1966–67 = 100.0)(*a*)

The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

	State Capital Cities—Combined and Separately							
Period	*Six State Capital Cities*(*b*)	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*
Year—								
1952–53	72.1	73.4	71.1	69.5	73.1	72.5	70.9	74.4
1953–54	73.5	74.5	72.5	70.9	74.7	74.6	74.4	76.5
1954–55	74.0	75.0	72.5	71.4	75.6	76.3	74.3	77.5
1955–56	77.0	77.5	76.8	73.8	78.1	78.3	78.1	80.2
1956–57	81.5	82.8	81.0	77.8	81.2	81.8	82.8	84.3
1957–58	82.3	84.0	81.3	79.4	81.8	82.4	82.9	84.8
1958–59	83.6	84.6	82.9	82.1	83.6	83.2	84.1	85.8
1959–60	85.7	86.5	85.3	84.2	86.2	84.8	85.6	87.6
1960–61	89.2	89.6	89.5	87.1	89.8	87.9	90.3	90.3
1961–62	89.6	89.9	89.8	88.4	89.5	88.2	90.7	91.6
1962–63	89.8	90.4	89.7	88.7	89.1	88.7	90.7	91.8
1963–64	90.6	91.4	90.4	89.6	90.2	89.8	91.7	92.5
1964–65	94.0	94.5	94.0	93.0	93.9	92.6	94.6	95.3
1965–66	97.4	97.7	97.5	97.5	97.0	96.1	98.0	98.1
1966–67	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1967–68	103.3	103.2	103.7	103.3	102.9	102.9	104.6	102.6
1968–69	106.0	106.2	106.2	105.5	105.3	105.5	106.1	104.4
Quarter								
1967—March	100.1	100.1	100.0	100.3	100.2	100.3	100.6	100.1
June	101.3	101.1	101.6	101.0	101.5	101.6	101.5	101.3
September	102.7	102.5	102.9	102.8	102.6	102.0	104.3	102.2
December	103.0	102.9	103.3	103.0	102.1	102.5	105.0	102.4
1968—March	103.4	103.2	103.8	103.7	102.6	103.1	104.6	102.6
June	104.2	104.0	104.8	103.7	104.2	104.0	104.6	103.2
September	104.6	104.4	105.1	104.7	104.2	104.3	105.0	103.5
December	105.7	105.9	106.0	105.3	105.2	104.9	105.8	103.9
1969—March	106.4	106.7	106.6	105.8	105.5	105.6	106.5	104.8
June	107.2	107.6	107.2	106.3	106.4	107.0	107.0	105.2
September	107.8	108.4	107.6	107.2	106.9	107.7	107.4	106.0
December	108.7	109.6	108.3	107.9	107.3	108.7	108.1	106.7

(*a*) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number. (*b*) Weighted average.

The following table shows Consumer Price Index Group Index Numbers for the six State capital cities combined for periods from the year 1952–53.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS
WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES, YEARS 1952–53 TO 1968–69 AND QUARTERS MARCH 1965 TO DECEMBER 1969

(*Base of each index: year* 1966–67 = 100.0) (*a*)

Period	*Food*	*Clothing and drapery*	*Housing*	*Household supplies and equipment*	*Miscellaneous*	*All groups*
Year—						
1952–53	70.7	83.7	55.8	86.9	67.2	72.0
1953–54	73.2	84.3	58.5	88.3	67.1	73.1
1954–55	73.7	84.5	60.5	88.1	67.1	74.5
1955–56	77.8	85.4	64.2	88.3	71.1	77.0
1956–57	81.5	86.9	68.1	92.0	79.3	81.5
1957–58	80.1	89.5	71.0	93.4	80.4	82.3
1958–59	81.6	90.5	72.9	94.4	81.4	83.6
1959–60	84.7	91.5	75.4	95.4	83.2	85.7
1960–61	90.2	93.4	80.8	96.6	85.5	89.2
1961–62	88.6	94.4	84.0	97.9	86.1	89.6
1962–63	87.8	94.7	86.5	97.7	86.6	89.8
1963–64	89.0	95.3	89.1	96.4	87.3	90.6
1964–65	93.9	96.8	92.0	97.2	91.4	94.0
1965–66	98.4	97.9	95.9	98.9	95.8	97.4
1966–67	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1967–68	104.7	102.2	104.5	101.2	102.8	103.3
1968–69	105.8	104.3	109.1	102.9	107.5	106.0
Quarter—						
1965—March	94.0	96.9	92.2	97.8	92.2	94.3
June	96.0	97.3	93.3	98.1	92.2	95.2
September	98.4	97.3	94.1	98.5	92.6	96.2
December	98.6	97.6	95.6	98.8	95.9	97.4
1966—March	97.8	97.8	96.2	98.8	97.2	97.6
June	98.8	98.7	97.8	99.5	97.3	98.4
September	98.7	98.9	98.5	99.7	98.7	98.8
December	99.4	99.8	99.5	100.0	100.0	99.7
1967—March	100.0	100.2	100.1	99.9	100.3	100.1
June	101.9	101.1	101.8	100.4	101.0	101.3
September	104.8	101.4	102.9	100.6	101.8	102.7
December	103.9	102.1	104.2	101.1	102.8	103.0
1968—March	104.6	102.3	104.7	101.1	103.1	103.4
June	105.6	102.8	106.0	101.9	103.6	104.2
September	105.3	103.3	106.7	102.1	105.1	104.6
December	105.5	104.1	108.7	102.7	107.3	105.7
1969—March	105.7	104.4	109.7	103.0	108.5	106.4
June	106.6	105.2	111.2	103.7	108.9	107.2
September	106.6	106.0	112.8	103.7	110.0	107.8
December	107.1	107.2	114.7	103.9	110.9	108.7

(*a*) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

The following table shows Consumer Price Index Group Index numbers for each State capital city and for Canberra for recent years and quarters.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS SIX STATE CAPITAL CITIES AND CANBERRA, YEARS 1948–49 TO 1968–69 AND QUARTERS MARCH TO DECEMBER 1969

(Base of each index: year 1966–67 = 100.0) (*a*)

The index numbers hereunder are designed to measure movements in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities.

City	*Year*						*1969*			
	1948–49	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*	*March qtr*	*June qtr*	*Sept qtr*	*Dec. qtr*
FOOD GROUP										
Six State Capitals(*b*)	38.2	93.9	98.4	**100.0**	104.7	105.8	105.7	106.6	106.6	107.1
Sydney	37.9	94.1	98.8	**100.0**	103.9	104.9	105.0	105.9	105.5	106.7
Melbourne	38.9	95.1	99.0	**100.0**	106.3	107.3	107.1	107.8	107.9	108.2
Brisbane	36.8	92.2	98.4	**100.0**	103.7	104.7	105.1	105.5	106.2	106.9
Adelaide	38.6	93.9	97.1	**100.0**	104.7	106.4	105.8	106.7	106.3	106.3
Perth	38.4	91.0	95.2	**100.0**	102.9	104.5	104.1	106.9	106.9	106.1
Hobart	39.1	94.0	98.9	**100.0**	106.8	105.3	105.1	105.8	105.6	106.0
Canberra	37.6	93.7	98.0	**100.0**	104.3	105.1	104.8	105.3	105.7	106.3
CLOTHING AND DRAPERY GROUP										
Six State Capitals(*b*)	48.9	96.8	97.9	**100.0**	102.2	104.3	104.4	105.2	106.0	107.2
Sydney	49.0	96.6	97.7	**100.0**	102.2	104.2	104.4	105.0	106.0	107.1
Melbourne	48.6	96.9	98.0	**100.0**	102.1	104.2	104.3	105.1	105.9	107.0
Brisbane	47.8	96.6	97.8	**100.0**	102.4	104.3	104.4	105.2	105.8	107.0
Adelaide	49.4	96.9	97.8	**100.0**	102.2	104.5	104.6	105.6	106.2	107.8
Perth	50.6	96.8	97.9	**100.0**	102.1	104.5	104.7	105.5	106.4	107.5
Hobart	48.2	97.0	98.0	**100.0**	102.4	104.5	104.7	105.3	106.2	107.6
Canberra	49.5	96.8	97.9	**100.0**	102.3	104.2	104.3	105.0	105.9	107.0
HOUSING GROUP										
Six State Capitals(*b*)	40.5	92.0	95.9	**100.0**	104.5	109.1	109.7	111.2	112.8	114.7
Sydney	41.1	92.1	95.3	**100.0**	105.0	110.5	111.2	113.3	115.7	118.3
Melbourne	41.3	92.0	96.3	**100.0**	103.8	107.9	108.4	109.7	110.5	111.8
Brisbane	41.3	91.5	97.3	**100.0**	105.8	109.6	110.0	110.7	112.7	113.0
Adelaide	38.4	92.1	95.7	**100.0**	102.1	104.7	105.3	106.3	107.4	108.9
Perth	36.1	92.1	95.4	**100.0**	105.8	112.7	113.7	115.1	117.0	119.9
Hobart	36.8	94.5	97.1	**100.0**	103.6	108.4	109.4	110.1	110.6	112.3
Canberra	41.8	97.1	98.6	**100.0**	100.4	101.9	102.1	102.4	102.7	103.2
HOUSEHOLD SUPPLIES AND EQUIPMENT GROUP										
Six State Capitals(*b*)	58.3	97.2	98.9	**100.0**	101.2	102.9	103.0	103.7	103.7	103.9
Sydney	59.7	98.7	99.3	**100.0**	101.2	103.0	103.3	104.3	104.3	104.5
Melbourne	55.0	95.8	98.7	**100.0**	101.4	102.9	102.8	103.6	103.5	103.6
Brisbane	58.9	96.8	98.8	**100.0**	101.2	104.3	104.7	104.8	105.2	105.2
Adelaide	64.9	98.0	99.2	**100.0**	100.3	101.1	101.4	101.5	101.5	101.6
Perth	60.4	96.7	98.3	**100.0**	100.7	102.1	102.3	102.6	102.7	103.6
Hobart	53.4	97.6	98.6	**100.0**	102.9	104.5	104.7	105.2	105.5	105.8
Canberra	61.4	99.6	99.7	**100.0**	100.4	100.6	100.7	101.0	101.4	101.7
MISCELLANEOUS GROUP										
Six State Capitals(*b*)	44.7	91.4	95.8	**100.0**	102.8	107.5	108.5	108.9	110.0	110.9
Sydney	46.5	92.8	96.4	**100.0**	103.0	108.5	109.8	110.2	111.6	112.8
Melbourne	42.2	90.6	95.1	**100.0**	102.5	107.3	108.6	108.6	109.1	109.9
Brisbane	44.4	90.4	95.5	**100.0**	103.2	106.0	106.3	106.6	107.9	108.5
Adelaide	47.1	90.9	95.7	**100.0**	102.6	107.0	107.9	109.2	110.4	110.5
Perth	45.4	90.0	95.3	**100.0**	103.2	105.6	105.9	106.5	107.5	109.8
Hobart	43.5	92.0	96.7	**100.0**	104.5	108.0	109.0	109.4	110.0	110.4
Canberra	50.2	93.1	97.1	**100.0**	103.0	107.0	108.7	108.9	110.4	111.6

(*a*) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number. (*b*) Weighted average.

Retail Price Index Numbers, 1901 to 1969

The index numbers shown below are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index.

RETAIL PRICE INDEX NUMBERS: SIX STATE CAPITAL CITIES COMBINED, 1901 TO 1969

(*Base: Year* 1911 = 100)

Year	*Index number*	*Year*	*Index number*	*Year*	*Index number*
1901	88	1924	164	1947	198
1902	93	1925	165	1948	218
1903	91	1926	168	1949	240
1904	86	1927	166	1950	262
1905	90	1928	167	1951	313
1906	90	1929	171	1952	367
1907	90	1930	162	1953	383
1908	95	1931	145	1954	386
1909	95	1932	138	1955	394
1910	97	1933	133	1956	419
1911	**100**	1934	136	1957	429
1912	110	1935	138	1958	435
1913	110	1936	141	1959	443
1914(*a*)	114	1937	145	1960	459
1915(*a*)	130	1938	149	1961	471
1916(*a*)	132	1939	153	1962	469
1917(*a*)	141	1940	159	1963	472
1918(*a*)	150	1941	167	1964	483
1919(*a*)	170	1942	181	1965	502
1920(*a*)	193	1943	188	1966	517
1921(*a*)	168	1944	187	1967	534
1922(*a*)	162	1945	187	1968	548
1923	166	1946	190	1969	564

(*a*) November.

International comparisons

The following table shows index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the year 1963 is taken as base (= 100). The index numbers show fluctuations in prices in each country, and do not measure relative price levels as between countries.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES ALL GROUPS INDEXES, 1961 TO 1969

(*Source: Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)
(*Base of each index: year* 1963 = 100)

Period	*Argentina (Buenos Aires)*	*Australia (a)*	*Belgium*	*Brazil (Sao Paulo)*	*Canada*	*France (b)*	*Germany, Federal Republic*	*India (c)*	*Indonesia (Djakarta)*	*Ireland*	*Italy*
1961	63	100	97	38	97	95	94	94	17	94	89
1962	81	100	98	58	98	95	97	97	46	98	93
1963	**–100–**	**–100–**	**100**	**100**	**100**	100	**100**	**100**	**100**	**100**	**100**
1964	122	102	104	187	102	103	102	113	205	107	106
1965	157	106	108	302	104	106	106	124	830	112	111
1966	207	110	–113–	443	108	109	110	137	9,502	115	–113–
1967	268	113	116	574	112	112	111	156	25,612	119	118
1968	311	–116–	119	714	117	117	113	160	57,712	–125–	119
1969	335	120	124	879	122	124	116	175	61,283	. .	122
1969—											
Qtr—											
March	328	118	122	812	119	122	115	170	61,212	131	120
June	327	119	123	859	122	123	116	174	59,298	133	121
Sept.	333	120	124	907	123	125	116	179	60,873	135	123
Dec.	351	121	126	946	124	126	117	177	63,616	136	124

For footnotes *see* next page.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES
ALL GROUPS INDEXES, 1961 TO 1969—*continued*

Period	*Japan (d)*	*Nether-lands*	*New Zealand*	*Norway*	*Pakistan (Kara-chi)*	*Philip-pines (Manila) (e)*	*Republic of South Africa (f)*	*Sweden*	*Switzer-land*	*United King-dom*	*United States of America (g*
1961 .	87	94	96	93	98	90	97	93	93	94	98
1962 .	93	96	98	98	99	95	99	97	97	98–	99
1963 .	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
	———					———					
1964 .	104	106	104	106	104	133	103	103	103	103	–101–
1965 .	111	111	–107–	110	110	139	106	109	107	108	103
1966 .	116	117	110	114	118	145	110	116	–112–	113	106
1967 .	121	–121–	117	119	126	155	114	121	116	115	109
1968 .	128	126	122	123	126	156	116	123	119	121	114
1969 .	134	135	128	127	130	160	119	126	122	127	120
1969—											
Qtr—											
March	130	133	126	125	129	159	118	125	121	125	117
June .	133	135	127	126	129	160	119	125	122	127	119
Sept. .	136	135	129	127	131	160	119	127	122	127	121
Dec. .	137	136	129	128	133	162	122	128	123	129	122

(*a*) Consumer Price Index converted to base 1963 = 100 by Commonwealth Statistician. (*b*) Prior to 1962, index for Paris—base: 1962 = 100. (*c*) Beginning 1969, new index—base: 1960 = 100. (*d*) Prior to 1964, 28 cities only. (*e*) Beginning 1964, new index—base: 1961 = 100. (*f*) Index for Europeans only. (*g*) Prior to 1964, excluding Alaska and Hawaii.

NOTE. Symbol – on each side of an index number (e.g. –95–) indicates that two series have been linked during that period. Symbol ——— between two index numbers indicates that it is not possible to link two series (because of change in scope, etc.) and therefore the index numbers are not comparable with each other even though they may be shown on the same base period.

WHOLESALE PRICES AND PRICE INDEXES

Two indexes of wholesale prices of basic materials have been compiled by the Commonwealth Bureau of Census and Statistics. These are:

(i) the Melbourne Wholesale Price Index;

(ii) the Wholesale Price (Basic Materials and Foodstuffs) Index.

New series of wholesale price index numbers relating to materials used and articles produced by defined areas of the economy are being developed. The first of these indexes, the Wholesale Price Index of Materials used in Building other than House Building, was issued in April 1969. Work is continuing on the preparation of two further measures, relating to materials used in house building and in manufacturing industry respectively. Taken together, these first three series will, to a considerable extent, constitute a currently representative replacement for the Wholesale Price (Basic Materials and Foodstuffs) Index. In the meantime that index will continue to be published in the form shown below. This is to meet the needs of those who, for special purposes, require the particular indexes included. However, it should be noted that the Building Materials group has been largely superseded by the Wholesale Price Index of Materials used in Building other than House Building, referred to above.

A special purpose index 'Wholesale Price Index of Electrical Installation Materials' is also published by the Bureau (*see* page 239).

Melbourne Wholesale Price Index

An index of Melbourne wholesale prices was first compiled in 1912. It related chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that year. Neither the list of items nor the weighting was varied, except for some changes in the building materials group in 1949. The series has some historical significance as a measure of changes, since the year 1861, in the prices of its component items combined in the proportions in which they were in common use about the year 1910. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43–5. Index numbers up to the year 1961, the last period for which the index was compiled, were published in Year Book No. 48, 1962.

Wholesale Price (Basic Materials and Foodstuffs) Index

General

A list of the commodities and other information concerning the Wholesale Price (Basic Materials and Foodstuffs) Index is given in *Labour Report* No. 53, 1967. However, since February 1969 the published groups of this index have been limited to the five series shown in the table below.

Commodities in the index are priced in their primary or basic form wherever possible and as nearly as may be at the point where they first make effective impact on the Australian price structure. The prices of imported goods, for instance, are on an ex-bond or into factory basis. The prices used have, in the main, been obtained directly from manufacturers and merchants, With a few important exceptions, they are from Melbourne sources.

The index is calculated on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928–29 to 1934–35 inclusive. The validity of the weighting and the representativeness of the index have become increasingly affected by changes in usage and in industrial structure.

Index numbers

Index numbers for selected groups of commodities, and for all groups combined, for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers on the base: average of three years ended June 1939 = 100 are published monthly in the mimeographed statement *Wholesale Price* (*Basic Materials and Foodstuffs*) *Index* and in the *Monthly Review of Business Statistics*. A table showing index numbers computed to the base: 1928 = 100 is published in the *Labour Report*.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS
YEARS 1954–55 TO 1968–69 AND MONTHS 1969–70

(*Base of each index: average of* 3 *years ended June* 1939 = 100)

Period	*Basic materials*			*Foodstuffs and tobacco (b)*	*Basic materials and foodstuffs*
	Metals and coal	*Building materials*	*Total (a)*		*Total, all groups (a)*
1954–55	391	372	330	315	322
1955–56	404	415	345	325	334
1956–57	409	463	367	324	344
1957–58	398	453	355	325	339
1958–59	392	423	340	332	336
1959–60	395	431	347	348	348
1960–61	399	439	346	372	360
1961–62	392	439	340	332	336
1962–63	388	439	336	342	340
1963–64	383	473	339	352	346
1964–65	391	503	345	364	355
1965–66	390	507	355	385	371
1966–67	396	511	362	401	383
1967–68	397	514	361	411	388
1968–69	407	537	370	405	389
1969–70—					
July	429	555	381	406	395
August	429	555	379	405	393
September	431	557	379	406	394
October	432	555	379	401	391
November	431	555	p378	p399	p389
December	437	555	p380	p399	p390
January	p447	548	p381	p403	p393

(*a*) In addition to the groups shown, includes oils, fats and waxes; textiles; chemicals; and rubber and hides. (*b*) Excludes potatoes and onions.

Wholesale Price Index of Materials used in Building other than House Building

General

This index was introduced in April 1969 and relates to the construction of buildings other than houses. It is the first of a series of indexes which will be prepared as circumstances permit and which will relate to materials used and articles produced by important and defined areas (or 'sectors') of the economy. To a considerable extent it provides an up-to-date replacement for the Building Materials group of the Wholesale Price (Basic Materials and Foodstuffs) Index.

Further information concerning the method of compiling the Index, as well as more detailed group index numbers for each capital city, will be found in the publication *Price Index of Materials used in Building other than House Building* (reference no. 9.6) of 23 April 1969 and subsequent issues, as well as in the Appendix to *Labour Report* No. 53.

Scope and composition

The index measures changes in prices of selected materials used in the construction of buildings other than houses and 'low-rise' flats (in general, those up to three storeys).

Its composition is in accordance with the materials usage in actual building projects which were selected as representative for the purpose. The building 'use-types' (e.g. office building, factory, etc.) directly represented are:

(i) 'High-rise' flats (in general, those of more than three storeys)
(ii) Offices
(iii) Factories
(iv) Health buildings (i.e. hospitals, nurses' quarters, clinics, etc.)
(v) Education buildings (i.e. schools, universities, kindergartens, etc.)
(vi) Other Commercial Premises (i.e. the Building Statistics categories of Hotels, Hostels, etc.; Shops; and Other Business Premises).

The completed values of these types of buildings constituted approximately 86 per cent of the completed values of all new buildings other than houses and low-rise flats in the years 1964–65 to 1966–67 inclusive. Not directly represented are buildings for entertainment and recreation purposes, buildings for religious purposes, and the Building Statistics category 'Miscellaneous' buildings.

The index includes 72 items, combined in eleven groups, in addition to an 'All Group' index. Some items carry the weights of similar items not directly priced. Items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality.

Although the selected materials (or many of them) are also used in house (and low-rise flat) building, in building repair, maintenance and alteration work, and in 'engineering construction' work (e.g. projects such as roads, dams, bridges and the like), the weighting pattern of the index, being designed for the specific purpose mentioned in the first paragraph of this Section, is not applicable to these other activities of the Construction industry. In addition, since the weights are based on an average materials usage over the stated range of building use-types, the index is not necessarily applicable to any specific building or any of the separate use-types.

Base period and method of calculation

The reference base of the index is the year 1966–67 = 100.0. The weighting base corresponds broadly with the reference base, but does not exactly coincide because of the nature of the data from which the weights were derived.

The index is a fixed-weights index and is calculated by the method known as 'the weighted arithmetic mean of price relatives'.

Derivation of items and weights

The items and weights used in the index were derived from reported values of each material used in selected representative buildings constructed in or about 1966–67. The selection took account of building use-type and construction characteristics (e.g. type of frame, wall, floor, etc.) within use-types. Information of the former was obtained from building statistics, and of the latter from an ad hoc survey of approximately 800 buildings.

The form used to obtain particulars of materials used in each selected building was set out on a 'trades' basis in the manner employed in a Bill of Quantities, using trades headings broadly based on those set out in the second edition of the *Australian Standard Method of Measurement of Building Works*. Under each heading it was required that each material used in that particular phase of building should be specified, together with its value.

Satisfactory analyses were received for 83 buildings, whose aggregate value was equivalent to approximately ten per cent of the value of building (other than house building) completed during 1966-67. The data from these analyses were combined to obtain a single list of materials and values relating to the sum of all building use-types directly represented in the index. Within each use-type the data were combined in accordance with the estimated relative importance of buildings of different value sizes. The data for the different use-types were then combined in accordance with their relative proportions by value in building commencements in Australia over the three years ended June 1967. The final step was to combine the hundreds of different varieties, etc., of materials into index items and to determine groupings thereof.

The weights

The weighting pattern used in the index is given in Year Book No 55, pages 1259-60. This single weighting pattern, relating to the whole of Australia, is applied (with minor exceptions) to local price measures in calculating indexes for each State capital city.

The index for the six State capital cities combined is a weighted average of individual city indexes. The relative weighting of the capitals is in proportion to the estimated value on completion of building other than house building in the separate States during the three years ended June 1967.

Prices

Price series used relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building. In the main they are collected as at the mid-point of the month to which the index refers, or as near thereto as practicable. However, the indicator used for the group Electrical Installation Materials is the existing wholesale price index described on pages 239-40, for which index prices were obtained each February, May, August and November until February 1969 when monthly compilation was commenced. In the Electrical Installation Materials group index observations are therefore quarterly up to February 1969, with the last observed level being used in intervening months, and monthly from February 1969 onwards.

There are some exceptions to the use of local prices in the indexes for each capital city. In a few cases where suitable price series are not currently available for an item in a given city, imputation is necessary. For each capital city, the whole of the group Electrical Installation Materials and the majority of the items in the group Mechanical Services Components are based on Sydney and Melbourne price series.

The point of pricing adopted for the new index is in keeping with sector wholesale price index concept. In terms of this concept a 'ring-fence' is set up around building other than house building. The items to be priced for index purposes are then those materials which are used in building activity within the ring-fence, and the point of pricing is that at which the materials cross the ring-fence. In general, this is the price 'delivered on-site'.

Index numbers

The index has been compiled for each month from July 1966, and for the financial years from 1966-67. Index numbers for the individual groups and all groups for the weighted average of the six State capital cities, and for all groups combined for each State capital city, are given on pages 238-9. Figures are published to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

The separate city indexes measure price movements in each State capital city individually. They enable comparisons to be drawn between capitals as to differences in degree of price movement from period to period, but not as to differences in price level.

WHOLESALE PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING

GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(*Base of each Index:* *Year* 1966–67 = 100.0)(*a*)

Period	*Concrete mix, cement, sand, etc.*	*Cement products*	*Bricks, stone, etc.*	*Timber, board and joinery*	*Steel and iron products*	*Aluminium products*
1966–67	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1967–68	101.5	102.2	103.7	103.0	102.3	101.4
1968–69	103.5	106.8	108.2	107.2	106.1	103.9
1969–70—						
July	105.3	110.1	110.1	110.1	107.9	105.4
August	106.8	110.3	110.1	110.5	108.0	105.6
September	107.0	110.6	110.5	110.6	108.3	105.8
October	107.1	110.9	111.2	110.9	108.4	106.2
November	107.1	111.1	111.2	110.9	108.6	106.1
December	107.2	111.2	111.4	110.9	108.7	106.2
January	108.1	111.8	113.0	111.1	110.3	106.7

(*a*) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

Period	*Other metal products*	*Plumbing fixtures*	*Miscellaneous materials*	*Electrical installation materials*(*b*)	*Mechanical services components*	*All Groups*
1966–67	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1967–68	105.9	102.8	102.3	100.9	101.4	102.2
1968–69	106.8	103.3	103.2	102.1	107.7	105.6
1969–70—						
July	118.6	107.8	103.9	108.4	109.5	108.2
August	121.2	109.2	104.3	109.3	109.7	108.6
September	124.9	109.4	105.1	111.3	109.3	109.1
October	123.1	110.4	105.4	111.2	109.3	109.2
November	123.8	112.2	105.8	110.5	109.4	109.3
December	127.8	114.1	105.8	112.7	109.4	109.7
January	128.4	114.3	106.0	112.8	109.7	110.5

(*a*) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number. (*b*) The Wholesale Price Index of Electrical Installation Materials is used as the indicator for this group.

WHOLESALE PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING

ALL GROUPS INDEX NUMBERS—SIX STATE CAPITAL CITIES

(*Base of each Index: Year* 1966–67 = 100.0)(*a*)

NOTE. The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

	State capital cities						
Period	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Weighted average of six State capital cities*
1966–67	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1967–68	102.6	101.7	102.2	101.8	102.0	102.3	102.2
1968–69	106.5	105.0	105.1	105.0	104.7	105.1	105.6
1969–70—							
July	109.4	107.3	108.0	107.4	106.8	107.4	108.2
August	109.7	108.2	108.0	107.6	107.2	107.7	108.6
September	110.1	108.7	108.4	108.3	107.9	108.0	109.1
October	110.2	108.8	108.9	108.4	107.8	108.5	109.2
November	110.3	108.9	109.1	108.4	107.8	108.5	109.3
December	110.7	109.2	109.5	108.7	108.1	108.7	109.7
January	111.6	109.8	110.5	109.0	108.7	109.6	110.5

(*a*) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

Wholesale Price Index of Electrical Installation Materials

This special purpose index was introduced in 1964, and index numbers were published at quarterly intervals from August 1959 to February 1969, when monthly publication commenced. In addition to its use in connection with the Bureau's constant price estimates in the national accounting field, the index has a direct value as a measure of changes in aggregate cost of materials used in an important part of the building industry (other than house building).

Commodities and grouping

The items in this index have been selected as representative of materials used in electrical installation in structures such as hospitals, schools, factories and multi-storeyed commercial buildings and flats. These items are divided into three main groups for which separate indexes are compiled in addition to the All Groups index. The combination of materials selected is fixed as to quantity and quality.

Price quotations

The items are priced as at the middle of the month for which index numbers are published. The basis of pricing is the price to electrical contractors, delivered on site or into store, metropolitan area, Sydney and Melbourne. The price series used relate to specific standards for each item and in some cases are combinations of prices for different makes, types, etc. The units of quantity specified as the basis for collecting prices are representative lots normally purchased by electrical contractors, inclusive of quantity discounts and packing and quantity extras, etc.

Method of construction

The index is a fixed-weights index with the reference base: year 1959-60 = 100. In general, the weights were derived from information relating to the values of materials used in selected representative projects in Sydney and Melbourne during the three years 1960-61 to 1962-63. The projects selected for this purpose had a minimum electrical materials and labour content of $10,000. Selected representative items carry the weights of similar items not directly priced. The index is calculated by the method known as 'the weighted arithmetic mean of price relatives'. For each period, base period, percentage value weights are applied to indexes of price movement relative to 1959-60.

Index numbers

Index numbers for each group of items and for all groups combined for the index of wholesale prices of electrical installation materials are given in the following table. Current index numbers are published monthly in the mimeographed statement *Wholesale Price Indexes—Price Index of Electrical Installation Materials.*

WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION MATERIALS
GROUP INDEX NUMBERS, YEARS 1959–60 TO 1968–69 AND
AUGUST 1968 TO JANUARY 1970

(*Base of each index: year* 1959–60 = 100.0) (*a*)

Period	*Conductors*	*Conduit and accessories*	*Switch-board and switch-gear material*	*All groups*
Year (*b*)—				
1959–60	**100.0**	**100.0**	**100.0**	**100.0**
1960–61	99.5	102.3	100.9	100.7
1961–62	98.7	102.8	99.8	100.1
1962–63	96.8	103.6	100.5	99.8
1963–64	93.2	103.7	100.8	98.5
1964–65	110.6	104.6	105.2	107.2
1965–66	105.8	104.2	106.6	105.7
1966–67	120.2	105.8	109.2	112.8
1967–68	119.9	106.0	112.5	113.8
1968–69	119.5	107.3	115.3	115.0
1968–69—August	112.2	106.5	113.8	111.3
November	113.9	106.8	115.6	112.7
February	124.8	106.8	115.7	117.1
March	124.8	109.1	115.7	117.7
April	125.9	109.1	115.6	118.1
May	127.2	109.1	116.2	118.8
June	131.4	109.1	116.5	120.6
1969–70—July	134.8	109.1	116.7	122.0
August	135.8	109.1	118.3	123.0
September	141.3	109.1	118.5	125.2
October	140.2	109.2	118.9	125.0
November	137.9	109.2	119.6	124.3
December	143.8	109.3	119.6	126.7
January	144.0	109.3	119.9	126.9

(*a*) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number. (*b*) Simple average of index numbers for the months of August, November, February and May in each year.

EXPORT PRICE INDEXES

An annual index of export prices has been published by the Bureau since its inception. Brief descriptions of indexes issued between 1901 and 1962 (that is, prior to the introduction of the current Export Price Index) are shown in Year Book No 55, 1969, pages 256-7.

The current Export Price Index

The current Export Price Index was first published in October 1962, but index numbers were compiled back to July 1959. The reference base of this index is: year 1959–60 - 100. This index is a fixed-weights index, and its purpose (as was that of the previous fixed-weights index) is to provide comparisons monthly, over a limited number of years, of the level of export prices of the selected items, making no allowance for variations in quantities exported. The index numbers are thus measures of price change only. The price series used in the index relate to specified standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc. For some commodities price movements in the predominant market, or markets, are used, while for other commodities average realisations in all export markets are used. As nearly as possible, prices used are on the basis f.o.b. at the main Australian ports of export. The index is calculated by the method known as 'the weighted arithmetic mean of price relatives'.

Composition and weighting

There are twenty-nine items in the current index compared with twenty items in the previous index. The weights for the current index are based on average annual values of exports during the five years 1956–57 to 1960–61. During that period the twenty-nine items in the index constituted 83 per cent of the total value of Australian exports. In recent years this proportion has decreased and in 1966–67 and 1967–68 was less than 75 per cent of the total value. A review of the content and weighting pattern of the index is proceeding.

The following table sets out a list of the items, and groups of items, in the index, together with the percentage contribution of each item and group to the All Groups index in the reference base year 1959–60. The weights used for some of the items are adjusted to cover some related commodities which are not priced directly. The most important instances of this are wool, which includes wool exported on sheepskins, and copper, zinc, lead and silver, which include the estimated metallic content of ores and concentrates exported. In the previous index the weight for gold was derived from production instead of export figures. For the period 1956–57 to 1960–61 production and exports of gold were similar, and therefore in the current index the weight for gold (as for the other items) is based on average annual exports during the period.

EXPORT PRICE INDEX

LIST OF ITEMS AND PERCENTAGE CONTRIBUTION OF ITEMS AND GROUPS TO ALL GROUPS INDEX IN 1959–60

Group and item	*Percentage contribution to All groups index in 1959–60*
Wool	*50.73*
Meats—	
Beef	6.71
Lamb	0.76
Mutton	0.59
Canned—Beef	1.65
Mutton	0.21
Total, meats	*9.92*
Dairy produce—	
Processed milk	1.36
Butter	4.02
Cheese	0.64
Eggs	0.47
Total, dairy produce	*6.49*
Cereals—	
Wheat and flour	10.11
Barley	1.77
Oats	0.66
Total, cereals	*12.54*
Dried and canned fruits—	
Dried—Sultanas	1.06
Currants	0.12
Canned—Pineapples	0.20
Apricots	0.11
Peaches	0.37
Pears	0.68
Total, dried and canned fruits	*2.54*
Sugar	*3.99*
Hides and tallow—	
Cattle hides	0.72
Tallow	0.54
Total, hides and tallow	*1.26*
Metals and coal—	
Coal	0.63
Iron and steel	3.46
Copper	1.57
Zinc	1.23
Lead	2.97
Silver	0.66
Total, metals and coal	*10.54*
Gold	*1.99*
Total	**100.00**

Index numbers

Index numbers for each of the groups and 'All groups' are shown in the table on page 242. The yearly index numbers are simple averages of the twelve monthly index numbers in each year.

Link between current and previous indexes

In order to show approximate movements in export prices over a long period, the 'All groups' indexes of the previous and current series have been linked together at the year 1959–60, the earliest year for which the new index has been compiled. The table at the foot of this page shows this linked series and a long-term price index for wool, which is the most important single component in the movement of the 'All groups' index.

EXPORT PRICE INDEX NUMBERS
YEARS 1959-60 TO 1968-69 AND MONTHS JULY 1969 TO MARCH 1970

(*Base of each index: year* 1959–60 = 100)

Period	*Wool*	*Meats*	*Dairy produce*	*Cereals*	*Dried and canned fruits*	*Sugar*	*Hides and tallow*	*Metals and coal*	*Gold*	*All groups*
1959–60	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
1960–61	92	104	82	99	99	101	92	97	100	95
1961–62	97	100	81	106	95	91	84	91	100	96
1962–63	104	101	88	107	90	107	72	89	100	101
1963–64	120	105	93	107	98	175	73	101	100	114
1964–65	102	110	94	107	100	100	91	123	101	105
1965–66	107	120	86	107	102	84	107	122	101	107
1966–67	103	124	84	114	101	67	89	117	101	105
1967–68	95	125	79	109	95	67	67	120	104	100
1968–69	99	131	72	104	97	72	73	123	117	102
1969–70—										
July	92	150	72	101	99	86	86	134	119	102
August	92	148	72	99	99	107	92	137	118	103
September	92	156	72	98	99	89	95	138	118	103
October	89	149	73	98	98	111	94	138	117	102
November	87	139	72	98	98	95	95	144	112	100
December	87	139	73	98	98	77	93	147	103	99
January	87	141	73	94	101	89	92	150	102	100
February	85	149	74	93	100	90	91	152	102	100
March	83	151	73	93	98	93	94	150	102	99

EXPORT PRICE INDEX NUMBERS—LINKED SERIES 1936-37 TO 1968-69

(*Base of each index: year* 1959–60 = 100)

Period	*Wool*	*All groups*
1936–37	29	30
1937–38	23	27
1938–39	19	22
1939–40	23	26
1940–41	24	28
1941–42	24	28
1942–43	28	30
1943–44	28	31
1944–45	28	34
1945–46	28	39
1946–47	41	54
1947–48	68	75
1948–49	86	88
1949–50	111	101
1950–51	235	173
1951–52	133	125
1952–53	145	128
1953–54	145	125
1954–55	127	114
1955–56	109	105
1956–57	136	117
1957–58	111	102
1958–59	85	90
1959–60	**100**	**100**
1960–61	92	95
1961–62	97	96
1962–63	104	101
1963–64	120	114
1964–65	102	105
1965–66	107	107
1966–67	103	105
1967–68	95	100
1968–69	99	102

WAGES, EARNINGS AND HOURS

Arbitration and Wages Boards Acts and associated legislation

Particulars regarding the operation of Commonwealth and State Laws for the regulation of wages, hours and other conditions of employment were first compiled for the year 1913, and revised particulars have appeared annually in the *Labour Report*. A summary of the Commonwealth legislation and brief particulars of Commonwealth and State industrial tribunals are given in the following paragraphs.

Commonwealth industrial legislation and tribunals

Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. The Parliament has made such a law, namely the *Conciliation and Arbitration Act* 1904–1969.

This Act defines an 'industrial dispute' as:

> '(*a*) A dispute (including a threatened, impending or probable dispute) as to industrial matters which extends beyond the limits of any State; and (*b*) a situation which is likely to give rise to a dispute as to industrial matters which so extends; and includes—(*c*) such a dispute in relation to employment in an industry carried on by, or under the control of, a State or an authority of a State; (*d*) a dispute in relation to employment in an industry carried on by, or under the control of, the Commonwealth or an authority of the Commonwealth, whether or not the dispute extends beyond the limits of any one State; and (*e*) a claim which an organization is entitled to submit to the Commission under section eleven A of the *Public Service Arbitration Act* 1920–1969 or an application or matter which the Public Service Arbitrator has refrained from hearing, or from further hearing, or from determining under section fourteen A of that Act, whether or not there exists in relation to the claim, application or matter a dispute as to industrial matters which extends beyond the limits of any one State.'

The Conciliation and Arbitration Act was extensively amended by an Act (No. 44 of 1956) assented to on 30 June 1956. This amendment altered the structure of the arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. The Commonwealth Industrial Court was established to deal with judicial matters under the Act, and the Commonwealth Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. A summary of the provisions of the *Conciliation and Arbitration Act* 1904–1969 is given in the following paragraphs.

The Commonwealth Industrial Court is at present composed of a Chief Judge and seven other Judges. The jurisdiction of the Court shall be exercised by not less than two Judges, except in the following circumstances. A single Judge may exercise the jurisdiction of the Court with respect to the dismissal or injury of an employee on account of industrial action, interpretation of awards, questions concerning eligibility of membership of an organisation, disputes between an organisation and its members, and a prescribed matter of practice or procedure. A single Judge may refer a question of law for the opinion of the Court constituted by not less than two Judges. The Court is a Superior Court of Record with the same power to punish contempts of its power and authority as is possessed by the High Court. In general, decisions of the Industrial Court are final; however, an appeal lies to the High Court, but only when the latter grants leave to appeal. The Act provides for the registration of associations of employees and employers, and for inquiries to be held concerning disputed elections in organisations; and certain powers in connection therewith are, by the Act, given to the Industrial Court. Provision is also made for the Commission to exercise the powers of the Court with regard to an application for cancellation of registration of an organisation. Any such change of jurisdiction must be notified by proclamation. This provision could be used if the powers of the Court in this regard were declared, in whole or in part, to be invalid.

Special provision is made concerning the right of audience before the Commonwealth Industrial Court. Briefly, except in proceedings which, in general, involve questions of law or offences against the Act, parties are able to elect whether to appear personally or to be represented by lawyers or officials. Even in proceedings involving questions of law, except appeals from decisions by other Courts to the Industrial Court, on matters arising under this Act or the *Public Service Arbitration Act* 1920–1969, the parties may, if they wish and the Court grants leave, be represented by officials.

The Commonwealth Conciliation and Arbitration Commission at the end of 1969 was composed of a President, five Deputy Presidents, a Senior Commissioner, eleven Commissioners and four Conciliators. The Commission is empowered to prevent or settle industrial disputes by conciliation or arbitration, and to make suggestions and to do such things as appear right and proper for (*a*) effecting a reconciliation between parties to industrial disputes; (*b*) preventing and settling industrial disputes by amicable agreement; and (*c*) preventing and settling, by conciliation or arbitration, industrial disputes not prevented or settled by amicable agreement. The Commission may exercise its powers of its own motion or on the application of a party.

The President may assign a Commissioner to deal with industrial disputes relating to particular industries, or members of the Commission to deal with a particular industrial dispute. However subject to the approval of the President, it is the duty of the Senior Commissioner to organise and allocate the work of the Commissioners and Conciliators. When an industrial dispute occurs or is likely to occur, a Commissioner shall take steps for the prompt prevention or settlement of that dispute by conciliation or, if in his opinion conciliation is unlikely to succeed or has failed, by arbitration. A Commissioner may arrange with the Senior Commissioner for a Conciliator to assist the parties to reach an amicable agreement and shall do so if the parties so request. If an agreement is reached, a memorandum of its terms shall be made in writing, and may be certified by the Commission. A certified memorandum shall have the same effect as an award.

Only the Commission in Presidential Session, that is, the Commission constituted by at least three presidential members nominated by the President, has the power to make awards, or to certify agreements, concerning standard hours, basic wages and long-service leave. Upon application by a party to an industrial dispute, a Commissioner shall consult with the President as to whether in the public interest any matter in dispute should be dealt with by a Commission constituted by not less than three members nominated by the President, at least one of whom shall be a presidential member and one, where practicable, the Commissioner concerned. The President may direct the Commission to hear the matter in dispute; however, after consideration, the Commission may refer the matter in dispute back for determination to the Commissioner originally dealing with the dispute.

An appeal against the decision of a Commissioner shall be heard by not less than three members nominated by the President, of whom at least two shall be presidential members of the Commission. However, an appeal will not be heard unless the Commission considers it is necessary as a matter of public interest. The President, after taking account of the views of the parties to a dispute, may appoint a member of the Commission to take evidence on behalf of a presidential bench of the Commission, so that it may have this evidence before it when it commences its hearing.

Full benches of the Commission not constituted by the same persons may sit in joint session at the direction of the President when he considers it desirable and has the opinion that a question is common to the matters before those benches. A joint session may be held whether the benches concerned are constituted pursuant to the Conciliation and Arbitration Act or the Public Service Arbitration Act, and whether they are constituted to hear references or appeals. However, it is left to each appropriate full bench to determine any of the matters before it.

Provision is also made in the Act for a presidential member of the Commission to handle industrial matters in connection with the maritime industries, the Snowy Mountains Area and the stevedoring industry, except in those matters for which the Act requires that the Commission shall be constituted by more than one member. The Commonwealth Conciliation and Arbitration Commission also deals with disputes and industrial matters, interstate or intra-state, associated with undertakings or projects of the Commonwealth Government which have been declared by the Minister to be Commonwealth projects for the purposes of this Act. In effect, this places employees of Commonwealth projects, so declared, under the jurisdiction of the Commission. The Minister has the power to exempt certain persons or classes of persons working on these projects from the jurisdiction of the Commission.

The Commission may make an award in relation to an industrial dispute concerning employees of a Commonwealth project or when the Public Service Arbitrator refrains from dealing with claims made by a Public Service employee organisation or consents to the claims being presented to the Commission, though such an award may be inconsistent with a law of the Commonwealth relating to salaries, wages, rates of pay or terms or conditions of service of employees in the Public Service as defined by section three of the *Public Service Arbitration Act* 1920–1969, not being the *Commonwealth Employees' Compensation Act* 1930–1968, the *Commonwealth Employees' Furlough Act* 1943–1968, the *Superannuation Act* 1922–1969 or any other prescribed Act.

An amendment of the Conciliation and Arbitration Act operative from November 1967 provided for the appointment of a person to be the Flight Crew Officers Industrial Tribunal empowered to prevent or settle industrial disputes relating to pilots, navigators, or flight engineers of aircraft.

The Conciliation and Arbitration Act provides that where a State law, or an order, award, decision or determination of a State industrial authority is inconsistent with or deals with a matter dealt within an award of the Commission, the latter shall prevail, and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

For further particulars regarding Commonwealth arbitration legislation, *see* the annual *Labour Report*. For information concerning the Australian Stevedoring Industry Authority and the Coal Industry Tribunal *see* the Transport and Communication chapter and the Mineral Industry chapter respectively of this Year Book, and for further information on the Commonwealth Public Service Arbitrator *see* the *Labour Report*.

State industrial tribunals

New South Wales

The controlling authority is the Industrial Commission of New South Wales, consisting of a President and seven other Judges. Subsidiary tribunals are the Conciliation Commissioners, the Apprenticeship Commissioner, Conciliation Committees, and Apprenticeship Councils constituted for particular industries. Each Conciliation Committee consists of a Conciliation Commissioner as Chairman and equal numbers of representatives of employers and employees. The Apprenticeship Commissioner and the members of the Conciliation Committee for an industry constitute the Apprenticeship Council for the industry. These subsidiary tribunals may make awards binding on industries, but an appeal to the Industrial Commission may be made against any award. Special Commissioners with conciliatory powers and limited arbitration powers may be appointed. Compulsory control commenced in 1901, after the earlier Acts of 1892 and 1899 providing for voluntary submission of matters in dispute had proved abortive.

Victoria

The authorites are separate Wages Boards for the occupations and industries covered, each consisting of a chairman and equal numbers of representatives of employers and employees, and a Court of Industrial Appeals, the latter presided over by a Judge of the County Court. The system was instituted in the State in 1896, and represented the first example in Australia of legal regulation of wage rates.

Queensland

Legal control was first instituted in 1908 with the passing of the Wages Boards Act. '*The Industrial Conciliation and Arbitration Act of* 1961' established the Industrial Conciliation and Arbitration Commission and preserved and continued in existence the Industrial Court. The Industrial Court is constituted by the President (a Judge of the Supreme Court of Queensland) sitting alone, and the Full Industrial Court by the President and two Commissioners. The Conciliation and Arbitration Commission is constituted by a Commissioner sitting alone; and the Full Bench of the Commission by at least three Commissioners. Not more than five Commissioners shall be appointed. A Commissioner shall not be capable of being a member of the Executive Council or of the Legislative Assembly, and shall not take part in the management of any business.

South Australia

In South Australia from July 1966 the system of control consists of an Industrial Commission, an Industrial Court, and Conciliation Committees. The Industrial Commission is composed of a President, Deputy President, and two Commissioners and has power to make awards. The President of the Commission is also Judge of the Industrial Court which deals with legal matters. The two Commissioners are chairmen of each of the Conciliation Committees consisting of an equal number of representatives of employers and employees. These committees issue awards. Where complete agreement cannot be reached in these committees the chairman sits as a Commissioner to determine the unresolved matters. Provision is made for references and appeals to the full Commission.

Western Australia

Legal control dates back to 1900. The present system of control comprises a four-man Western Australian Industrial Commission and an Industrial Appeal Court consisting of three Supreme Court Judges who are nominated by the Chief Justice of Western Australia. A Commissioner may, in relation to any dispute or other matter, refer such matters to the Commission in Court Session. Similarly, appeals from decisions of a single Commissioner are heard by the other three Commissioners acting as the Commission in Court Session, but such hearings are restricted to the evidence and matters raised in the proceedings before the single Commissioner. Up to December 1966 the Commission in

Court Session fixed and adjusted the basic wage. In December 1966 legislation provided that the Western Australian basic wage rates should be the same as the Commonwealth Six Capitals rates as soon as these exceeded the State rates. However Commonwealth basic wages were eliminated from Commonwealth awards in July 1967. Western Australian Legislation operative from 22 November 1968 fixed the State basic wages for adult males and adult females and provided for the Commission to review the basic wage at least every twelve months (for further details *see* page 267). Appeals from the Commission to the Industrial Appeal Court are limited to matters which are erroneous in law or in excess of jurisdiction. The Court has the power to impose penalties for disobedience of orders made by the Commission.

The Western Australian Coal Industry Tribunal, established under the *Mining Act*, 1904–1969, has power to determine any industrial matter in the coal mining industry. It consists of a chairman and four other members (two representatives each of employers and employees). Boards of reference may be appointed by the Tribunal, and decisions of the Tribunal may be reviewed by the Court of Arbitration on the application of a party subject to the decision.

Tasmania

The authority consists of Wages Boards for separate industries, comprising a Chairman (who is common to all Wages Boards) appointed by the Governor, and equal numbers of representatives of employers and employees appointed by the Minister administering the Act. The system was instituted in 1910.

Incidence of industrial awards, determinations and collective agreements

In May 1968 a survey ascertained the approximate proportions of employees whose wages, salaries and conditions of work were normally varied in accordance with variations in awards, determinations and registered collective agreements of Commonwealth and State industrial authorities. The scope, results, etc. of this survey were published in a statistical bulletin *Survey of the Incidence of Industrial Awards, Determinations and Collective Agreements*, May 1968, dated 19 June 1969.

Rates of wage and hours of work

This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the indexes there are fifteen industry groups for adult males and eight industry groups for adult females. For relevant periods these indexes replace cognate indexes (base: year 1911 = 1,000 for males and April 1914 = 1,000 for females) published in Year Books before No. 46, 1960. The current indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April 1954 which showed the number of employees covered by individual awards, determinations and agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November 1954. This second survey showed the number of employees in each occupation within selected awards, etc. thereby providing occupation weights.

The industrial classification used in the current indexes, shown in the table on page 248, does not differ basically from the previous classification, the alterations being largely in the arrangement of classes. The former Pastoral, agricultural, etc. group and the domestic part of the Amusement, hotels, personal service, etc. group are excluded from the current indexes because of coverage difficulties.

The minimum wage rates and standard hours of work used in the current indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and agreements in force at the end of each month or quarter, commencing with March 1939 for adult males and March 1951 for adult females. Particulars have been available as at the end of each month for adult males from January 1957 and for adult females from July 1967. The index for adult males includes rates and hours for 3,415 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,313. For adult females the corresponding numbers are 1,100 and 515. Using the industry and occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industry group for each State and Australia.

Because the indexes are designed to measure movements in prescribed minimum rates of 'wages' as distinct from 'salaries', those awards, etc. which relate solely or mainly to salary earners are excluded.

A more detailed description of the current indexes of minimum rates of wage and standard hours of work is given in the *Labour Report*, which also contains an extensive tabular presentation of the minimum rates of pay for adult males and females in the principal occupations in the capital city of each State. Further particulars of wage rates and index numbers will be found in mimeographed bulletins *Minimum Wage Rates, March* 1939 *to June* 1965 and *Wage Rates Indexes, June* 1965 *to June* 1968. Current figures are published in the monthly bulletin *Wage Rates and Earnings.*

Weekly wage rates—adult males

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers for a full week's work and index numbers at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS(*a*), STATES DECEMBER 1950 TO 1969

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*b*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of December—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
			RATES OF WAGES(*c*) ($)				
1950 . . .	20.62	20.18	19.52	19.79	20.06	19.80	20.20
1960 . . .	36.28	34.99	35.07	34.22	35.81	35.15	35.50
1967 . . .	45.35	44.59	45.55	43.79	45.08	45.31	45.00
1968 . . .	49.37	48.83	49.01	48.11	47.72	48.96	48.93
1969 . . .	52.17	51.67	51.68	50.52	50.66	51.92	51.70
			INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rates for Australia,* 1954 = 100)				
1950 . . .	73.0	71.4	69.1	70.1	71.0	70.1	71.5
1960 . . .	128.5	123.9	124.2	121.2	126.8	124.5	125.7
1967 . . .	160.6	157.9	161.3	155.1	159.6	160.4	159.3
1968 . . .	174.8	172.9	173.5	170.3	169.0	173.4	173.2
1969 . . .	184.7	182.9	183.0	178.9	179.4	183.9	183.1

(*a*) Excludes rural. (*b*) As prescribed in awards, determinations and agreements. (*c*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industry group and for all groups (excluding rural) at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRY GROUPS, AUSTRALIA DECEMBER 1950 TO 1969

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

RATES OF WAGES(b)

($)

Industry group	*End of December—*				
	1950	*1960*	*1967*	*1968*	*1969*
Mining and quarrying	25.96	41.47	52.26	56.79	58.92
Manufacturing—					
Engineering, metals, vehicles, etc.	20.17	35.02	43.72	48.58	50.62
Textiles, clothing and footwear	19.74	34.04	42.40	45.14	48.18
Food, drink and tobacco	20.14	35.22	44.39	47.19	50.28
Sawmilling, furniture, etc.	19.60	34.62	43.36	46.81	49.89
Paper, printing, etc.	21.42	37.92	47.84	53.13	55.66
Other manufacturing	19.76	34.72	43.97	47.60	49.98
All manufacturing groups	*20.08*	*35.05*	*43.95*	*48.06*	*50.49*
Building and construction	19.86	35.75	46.16	50.51	52.93
Railway services	19.58	34.65	43.50	46.42	49.27
Road and air transport	19.79	35.25	45.16	47.90	51.33
Shipping and stevedoring(c)	19.66	34.46	45.47	51.23	55.55
Communication	21.33	38.49	52.69	58.77	64.40
Wholesale and retail trade	20.08	35.71	44.79	47.97	50.98
Public authority (n.e.i.) and community and business services	19.21	34.81	45.53	47.86	52.00
Amusement, hotels, personal service, etc.	19.23	33.73	42.33	44.64	47.23
All industry groups(d)	**20.20**	**35.50**	**45.00**	**48.93**	**51.70**

INDEX NUMBERS

(*Base: Weighted Average Weekly Wage Rate for Australia*, 1954 = 100)

Industry group	*1950*	*1960*	*1967*	*1968*	*1969*
Mining and quarrying	91.9	146.8	185.0	201.1	208.6
Manufacturing—					
Engineering, metals, vehicles, etc.	71.4	124.0	154.8	172.0	179.2
Textiles, clothing and footwear	69.9	120.5	150.1	159.8	170.6
Food, drink and tobacco	71.3	124.7	157.2	167.1	178.0
Sawmilling, furniture, etc.	69.4	122.6	153.5	165.7	176.7
Paper, printing, etc.	75.9	134.3	169.4	188.1	197.1
Other manufacturing	70.0	122.9	155.4	168.5	177.0
All manufacturing groups	*71.1*	*124.1*	*155.6*	*170.2*	*178.8*
Building and construction	70.3	126.6	163.4	178.8	187.4
Railway services	69.3	122.7	154.0	164.4	174.4
Road and air transport	70.1	124.8	159.9	169.6	181.7
Shipping and stevedoring (c)	69.6	122.0	161.0	181.4	196.7
Communication	75.5	136.3	186.6	208.1	228.0
Wholesale and retail trade	71.1	126.4	158.6	169.8	180.5
Public authority (n.e.i.) and community and business services	68.0	123.2	161.2	169.5	184.1
Amusement, hotels, personal service, etc.	68.1	119.4	149.9	158.1	167.2
All industry groups(d)	**71.5**	**125.7**	**159.3**	**173.2**	**183.1**

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (c) Includes the value of keep where supplied. (d) Excludes rural.

Adult males—components of total wage rate. A dissection of weighted average minimum weekly wage rates for adult males into three components of the total wage, i.e. basic wage, margin, and loading, with separate particulars for employees covered by awards etc. within Commonwealth and State jurisdictions, has been calculated for months to June 1967 and published in the mimeographed bulletins *Minimum Wage Rates, March* 1939 *to June* 1965 and *Wage Rates Indexes, June* 1965 to *June* 1968.

Adult males—jurisdiction. Weighted average minimum weekly wage rates for adult males covered by *Commonwealth awards etc.* and for those covered by *State awards etc.* (as defined below) are shown separately in the following table. For the purposes of the index, *Commonwealth awards etc.* include awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission, and determinations of the Commonwealth Public Service Arbitrator. *State awards etc.* include awards or determinations of, or agreements registered with, State industrial tribunals, together with certain unregistered agreements when these are dominant in the particular industries to which they refer.

WEEKLY WAGE RATES(*a*): ALL GROUPS—ADULT MALES

($)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AS PRESCRIBED IN AWARDS, DETERMINATIONS AND AGREEMENTS

Jurisdiction	*End of December—*				
	1950	*1960*	*1967*	*1968*	*1969*
Commonwealth awards, etc.	20.18	35.14	44.77	49.38	52.02
State awards, etc.	20.23	35.88	45.24	48.45	51.35
All awards, etc.	20.20	35.50	45.00	48.93	51.70

(*a*) Excludes rural. The amounts should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. For definitions *see* text above.

Weekly wage rates—adult females

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work and index numbers at the dates specified. This series has not been compiled for years prior to 1951.

WEEKLY WAGE RATES: ADULT FEMALES, STATES, DECEMBER 1951 TO 1969

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(*a*) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of December—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
			RATES OF WAGES(*b*) ($)				
1951	17.23	17.22	16.12	17.02	16.25	16.56	17.03
1960	26.12	24.66	23.93	24.29	25.12	23.88	25.17
1967	33.29	32.04	32.71	31.32	32.01	31.62	32.57
1968	35.53	34.52	34.70	33.60	34.12	33.45	34.85
1969	38.50	37.03	37.57	35.66	36.53	36.55	37.57
			INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rate for Australia*, 1954 = 100)				
1951	86.6	86.5	81.0	85.5	81.6	83.2	85.6
1960	131.2	123.9	120.2	122.0	126.2	120.0	126.4
1967	167.2	160.9	164.3	157.3	160.8	158.8	163.6
1968	178.5	173.4	174.3	168.8	171.4	168.0	175.0
1969	193.4	186.0	188.7	179.1	183.5	183.6	188.7

(*a*) As prescribed in awards, determinations and agreements. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industry groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS, AUSTRALIA DECEMBER 1951 TO 1969

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

	End of December—				
Industry Group	*1951*	*1960*	*1967*	*1968*	*1969*
RATES OF WAGES(b) ($)					
Manufacturing—					
Engineering, metals, vehicles, etc.	17.09	24.98	31.82	34.14	37.04
Textiles, clothing and footwear	17.12	24.07	30.60	32.38	34.75
Food, drink and tobacco	16.58	24.63	31.47	33.68	36.06
Other manufacturing	16.88	24.80	31.69	33.81	36.62
All manufacturing groups	*16.99*	*24.46*	*31.17*	*33.17*	*35.73*
Transport and communication	17.75	26.02	35.31	37.92	40.59
Wholesale and retail trade	17.11	26.36	34.21	36.89	39.79
Public authority (n.e.i.) and community and business services	17.01	25.78	34.64	36.57	39.68
Amusement, hotels, personal service, etc.	16.68	24.50	31.40	34.07	36.69
All industry groups	**17.03**	**25.17**	**32.57**	**34.85**	**37.57**
INDEX NUMBERS (*Base: Weighted Average Weekly Wage Rate for Australia*, 1954 = 100)					
Manufacturing—					
Engineering, metals, vehicles, etc.	85.9	125.5	159.8	171.5	186.1
Textiles, clothing and footwear	86.0	120.9	153.7	162.6	174.6
Food, drink and tobacco	83.3	123.7	158.1	169.2	181.1
Other manufacturing	84.8	124.6	159.2	169.8	184.0
All manufacturing groups	*85.4*	*122.9*	*156.6*	*166.6*	*179.5*
Transport and communication	89.2	130.7	177.4	190.5	203.9
Wholesale and retail trade	85.9	132.4	171.8	185.3	199.9
Public authority (n.e.i.) and community and business services	85.4	129.5	174.0	183.7	199.3
Amusement, hotels, personal service, etc.	83.8	123.1	157.7	171.1	184.3
All industry groups	**85.6**	**126.4**	**163.6**	**175.0**	**188.7**

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Standard hours of work

In the fixation of weekly wage rates most industrial tribunals prescribe the number of hours constituting a full week's work for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages and index numbers on page 252. The main features of the reduction of hours to forty-four and later to forty per week are summarised below. Further details will be found in previous issues of the Year Book.

The 44-hour week

No permanent reduction to a 44-hour week was effected until 1925, although temporary reductions had been achieved earlier. In 1920 the New South Wales legislature granted a 44-hour week to most industries, but in the following year this provision was withdrawn. Also in 1920 the President of the Commonwealth Court of Conciliation and Arbitration (Higgins *J.*), after inquiry, granted a 44-hour week to the Timber Workers' Union, and in the following year he extended the same privilege to the Amalgamated Society of Engineers. In 1921, however, a reconstituted Commonwealth Court of Conciliation and Arbitration unanimously rejected applications by five trade unions for the shorter standard week and re-introduced the 48-hour week in the case of the above-mentioned two unions then working forty-four hours. During 1924 the Queensland Parliament passed legislation to operate from 1 July 1925 granting the 44-hour standard week to employees whose conditions of work were regulated by awards and agreements of the Queensland State industrial authority. Similar legislative action in New South Wales led to the re-introduction of the 44-hour week in that State as from 4 January 1926.

In 1927 the Commonwealth Court of Conciliation and Arbitration granted a 44-hour week to the Amalgamated Engineering Union and intimated that this reduction in standard hours of work would be extended to industries operating under conditions similar to those in the engineering industry. Applications for the shorter hours by other unions were, however, treated individually, the nature of the industry, the problem of production, the financial status, and the amount of foreign competition being fully investigated. The economic depression delayed the extension of the standard 44-hour week until the subsequent improvement in economic conditions made possible its general extension to employees under Commonwealth awards.

In States other than New South Wales and Queensland the change to the shorter week extended over the years from 1926 to 1941.

The 40-hour week

The New South Wales Parliament passed legislation granting a 40-hour week, operative from 1 July 1947, to industries and trades regulated by State awards and agreements. In Queensland similar legislation was passed by Parliament providing for the 40-hour week to operate from 1 January 1948.

The Commonwealth Court of Conciliation and Arbitration, in its judgment of 8 September 1947 in the *Standard Hours Inquiry*, 1947 granted the reduction to the 40-hour week from the beginning of the first pay-period commencing in January 1948. On 27 October 1947 the South Australian Industrial Court approved the incorporation of the 40-hour standard week in awards of that State. The Court of Arbitration of Western Australia, on 6 November 1947, approved that provision for a 40-hour week could be incorporated in awards of the Court, commencing from 1 January 1948.

In Victoria and Tasmania the Wages Board met and also incorporated the shorter working week in their determinations, so that from the beginning of 1948 practically all employees in Australia whose conditions of labour were regulated by industrial authorities had the advantages of a standard working week of forty hours or, in certain cases, less.

Hourly wage rates

The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc. for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between various occupations in each State, and between the same occupations in the several States. For some purposes a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage. given in the following tables relate to all industry groups except Rural, and Shipping and stevedoring The Rural industry is not included in the index, and Shipping and stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

The following table shows the weighted average minimum hourly rates of wage payable to adult male workers and index numbers of hourly rates in each State.

HOURLY WAGE RATES (*a*): ADULT MALES
STATES, DECEMBER 1950 TO 1969

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of December—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
RATES OF WAGE (*b*) (cents)							
1950 . . .	51.63	50.48	48.83	49.53	50.29	49.52	50.58
1960 . . .	90.91	87.57	87.79	85.61	89.89	88.08	88.92
1967 . . .	113.32	111.58	114.08	109.58	113.10	113.65	112.59
1968 . . .	123.45	122.01	122.38	120.06	119.35	122.84	122.30
1969 . . .	130.35	129.04	129.18	126.01	126.64	129.38	129.25
INDEX NUMBERS (*Base: Weighted Average Hourly Wage Rates for Australia*, 1954 = 100)							
1950 . . .	73.0	71.4	69.0	70.0	71.1	70.0	71.5
1960 . . .	128.5	123.8	124.1	121.0	127.1	124.5	125.7
1967 . . .	160.2	157.7	161.2	154.9	159.9	160.6	159.1
1968 . . .	174.5	172.4	173.0	169.7	168.7	173.6	172.9
1969 . . .	184.2	182.4	182.6	178.1	179.0	182.9	182.7

(*a*) Weighted average hourly rates of wage for all industry groups except rural, and shipping and stevedoring. *See* page 251. (*b*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows the weighted average minimum hourly rates of wage payable to adult female workers and index numbers of hourly rates in each State.

HOURLY WAGE RATES: ADULT FEMALES
STATES, DECEMBER 1951 TO 1969

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of December—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
RATES OF WAGE (*a*) (cents)							
1951 . . .	43.58	43.25	40.60	42.81	40.85	41.86	42.92
1960 . . .	66.09	61.94	60.28	61.08	63.14	60.37	63.44
1967 . . .	84.24	80.48	82.40	78.76	80.46	79.79	82.10
1968 . . .	89.88	86.70	87.40	84.46	85.76	84.42	87.83
1969 . . .	97.53	93.09	94.78	89.71	91.83	93.03	94.80
INDEX NUMBERS (*Base: Weighted Average Hourly Wage Rate for Australia*, 1954 = 100)							
1951 . . .	86.9	86.2	80.9	85.3	81.4	83.4	85.6
1960 . . .	131.7	123.5	120.1	121.7	125.8	120.3	126.4
1967 . . .	167.9	160.4	164.3	157.0	160.4	159.0	163.6
1968 . . .	179.2	172.8	174.2	168.4	170.9	168.3	175.1
1969 . . .	194.4	185.5	188.9	178.8	183.0	185.4	189.0

(*a*) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Weighted average standard weekly hours of work

The 40-hour week has operated in Australia generally from 1 January 1948, and in New South Wales from 1 July 1947 (*see* page 251). However, as stated on page 251, the number of hours constituting a full week's work (excluding overtime) differs between occupations and or between States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and agreements for a full working week, in respect of adult male workers in all industry groups except Rural, and Shipping and stevedoring, at 31 December 1969, were: New South Wales, 39.95; Victoria, 39.97; Queensland, 39.98; South Australia, 39.96; Western Australia, 39.89; Tasmania, 39.97; Australia, 39.96. Corresponding figures for adult female workers at 31 December 1969 were: New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.63; Australia, 39.67.

Average weekly earnings

NOTE. *Particulars of average weekly earnings for the years 1966-67 to 1969-70 were being revised when this chapter was sent for press. Revised figures will be found in the Appendix.*

The figures in this section are derived from particulars of employment and of wages and salaries recorded on pay-roll tax returns, from other direct collections, and from estimates of the unrecorded balance. The figures relate to civilians only.

Particulars of wages and salaries paid are not available for males and females separately from these sources; average weekly earnings have therefore been calculated in terms of male units, i.e. total male employees plus fifty-five per cent of female employees. This proportion is derived from the estimated ratio of female to male earnings in Australia. As it was not possible to estimate the ratio of female to male earnings in the several States the same ratio has been used in each State. Because the actual ratio may vary between States precise comparisons between average earnings in different States cannot be made on the basis of the figures shown in the following table. Quarterly figures corresponding to those shown in the table are published in the quarterly statement *Average Weekly Earnings*, in the monthly bulletin *Wage Rates and Earnings* and in the *Monthly Review of Business Statistics.*

Particulars of average weekly earnings per employed male unit are shown in the following table for each of the years 1959–60 to 1965–66.

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT(*a*)
STATES, 1959–60 TO 1965–66
($)

Year	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.(c)*	*W.A.*	*Tas.*	*Aust.*
1959–60	45.70	45.50	39.40	41.80	39.20	41.90	43.90
1960–61	48.10	47.20	41.60	43.40	41.60	43.30	46.00
1961–62	49.10	48.50	43.20	44.70	43.00	45.30	47.20
1962–63	50.20	50.10	44.40	45.80	44.20	45.90	48.40
1963–64	52.60	52.50	46.90	48.20	47.20	48.40	50.90
1964–65	56.50	56.40	50.40	52.00	49.50	51.00	54.60
1965–66	58.60	59.20	52.50	53.80	54.10	53.80	57.00

(*a*) Includes, in addition to wages at award rates, earnings of salaried employees, overtime earnings, over-award and bonus payments, payments made in advance or retrospectively during the periods specified, etc. *See* explanatory notes above. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

The following table shows, for 'All industries' and for 'Manufacturing', the movement in average weekly earnings from 1959–60 to 1965–66. The 'All industries' index is based on pay-roll tax returns and other data. It relates to average weekly earnings per employed male unit. The index for manufacturing industries is based on the average earnings of male wage and salary earners employed in factories as disclosed by annual factory censuses (*see* the chapter Manufacturing Industry).

The index numbers for 'All industries' and 'Manufacturing' show the movement in average earnings for each group over a period of time. However, they do not give, at any point of time, a comparison of actual earnings in the two groups. The base of each series is: year 1953–54 = 100, and both series have been seasonally adjusted.

**INDEXES OF AVERAGE WEEKLY EARNINGS(*a*)(*b*): AUSTRALIA
YEARS 1959-60 TO 1965-66**

SEASONALLY ADJUSTED

(*Base of each index: year* 1953–54 = 100)

Year	*All industries*	*Manufacturing*	*Year*	*All industries*	*Manufacturing*
1953–54	**100.0**	**100.0**	1963–64	155.9	154.8
1959–60	134.3	135.4	1964–65	167.3	167.1
1960–61	140.6	141.1	1965–66	174.6	173.1
1961–62	144.7	143.4			
1962–63	148.3	147.7			

(*a*) *See* footnote (*a*) to table on page 253. (*b*) Average earnings per employed male unit.

Surveys of wage rates, earnings and hours, 1960 to 1968

Since 1960 a number of statistical surveys of wages and hours of work in Australia have been undertaken by this Bureau. The object of these surveys has been to obtain information on wage rates, actual weekly earnings and hours of work on a more comprehensive scale than previously available in Australia. A summary of the scope and coverage of each of these surveys is shown on the following pages.

Survey of wage rates and earnings, September 1960

This survey, relating to the last pay-period in September 1960, obtained information about marginal rates of wage and the dissection and distribution of actual weekly earnings of adult male employees (excluding part-time and casual employees). In addition to the exclusion of government and semi-government employees, and private employees in rural industry and in private domestic service, the survey did not cover the following—shipping and stevedoring industries; the motion picture industry; certain businesses such as those of accountants, consultant engineers, etc.; and trade associations, etc. The survey was based on a stratified random sample of private employers in other industries who were subject to pay-roll tax (that is, employers paying more than $400 a week in wages and salaries). For information on the results of the survey *see* Year Book No. 51, pages 439 to 442.

Survey of weekly earnings, October 1961

This survey was conducted for the last pay-period in October 1961 and provided information about the distribution of actual weekly earnings for adult male employees (excluding part-time and casual employees). The survey did not cover government or semi-government employees, private employees in rural industry and in private domestic service, or employees not covered by pay-roll tax returns. The survey was based on a stratified random sample of private employers in other industries who were subject to pay-roll tax (that is, employers paying more than $400 a week in wages and salaries). The results of the survey were published in Year Book No. 51, pages 442–4.

Surveys of weekly earnings and hours, October 1962 to 1968 (excluding October 1965)

For details of these surveys *see* pages 255–61.

Survey of weekly earnings, October 1965

A survey of weekly earnings of male employees was conducted for the last pay-period in October 1965. The survey was conducted by means of: (i) a sample of private employers subject to pay-roll tax (that is those paying more than $400 a week in wages and salaries); (ii) a complete coverage of Commonwealth and State government departments and semi-government authorities; and (*iii*) a sample of local government authorities. It related to certain specified industry groups only.

The object of the survey was to obtain estimates of the numbers and proportions of full-time adult male employees in various weekly earnings groups and a dissection of total weekly earnings paid to full-time adult males into: (*i*) overtime earnings; (ii) ordinary time earnings at 'award, etc. rates'; and (*iii*) ordinary time earnings in excess of those at 'award, etc. rates' (divided into (*a*) payment by measured result and (*b*) other) as defined. The survey also provided figures of average weekly earnings for full-time adult male and junior male employees. Separate details were obtained for (i) managerial, executive, professional and higher supervisory staff, and (ii) other full-time male employees. The results of the survey were published in previous issues of the Year Book. For further details *see Labour Report* No. 52, 1965 and 1966.

Surveys of weekly earnings and hours, October 1962 to October 1968

Sample surveys in respect of most private employers subject to pay-roll tax (i.e. those paying more than $400 per week in wages and salaries) have been conducted as at the last pay-period in October during recent years. Some results of the 1968 survey and comparisons with earlier such surveys are contained in the following tables. Further particulars including averages for each State were published in statistical bulletin, *Survey of Weekly Earnings and Hours*, October 1968.

In addition to obtaining data for the calculation of average weekly earnings, average weekly hours paid for, and average hourly earnings, the October 1966, 1967 and 1968 surveys obtained information on overtime and ordinary time earnings and hours for full-time employees (other than managerial, etc. staff). The figures of average overtime earnings and average overtime hours are the averages for *all* employees (in the specified category) represented in the survey whether or not they worked overtime. The survey figures do not show the average overtime earnings or hours of only those employees who worked overtime.

Figures for average weekly earnings, average weekly hours paid for, and average hourly earnings as at the selected pay-periods are presented for males and females (adult and junior) separately by industry groups and by States. They reflect the effects of differences (and of changes between points of time) in amounts paid for the various occupations; in amounts paid for the same occupations; in occupational structures within industries; in industry structure; in degrees of business activity (incidence of overtime, etc.); and in the incidence of incentive schemes, piece-work and profit-sharing scheme payments, etc.

Coverage

The results of the surveys are based on returns from stratified random samples of private employers subject to pay-roll tax. Employees in rural industry and in private domestic service are excluded because most employers in these two industries are not subject to pay-roll tax. Also excluded from the surveys are: employees of government and semi-government authorities; employees of religious, benevolent and other similar organisations exempt from pay-roll tax; and all employees in the Northern Territory and the Australian Capital Territory. The earnings and hours of waterside workers employed on a casual basis are excluded because they are subject to wide fluctuations for short periods such as those covered by these surveys.

Approximately 4,080 employers were included in the October 1968 survey and the sample represented 1,567,000 male and 684,000 female wage and salary earners.

As the survey was based on a sample, the resultant estimates are subject to sampling variability, that is, variations which might occur by chance because only a sample of employers was surveyed. The extent of the detail published has been determined after considering estimated measures of sampling variability.

Comparability of results

In addition to affecting the results of each sample survey, sampling variability also affects comparison between each year's results.

The industry classification adopted for the 1968 and previous earnings and hours surveys from 1963 onwards (including the 1965 survey) is that used for the 1961 and 1966 population censuses. Because the October 1962 survey was based on a different industry classification only broad comparison with more recent surveys is possible (*see* tables in previous Year Book). Some comparison of the results of the surveys of 1963, 1964, 1966, 1967 and 1968 are shown in the tables on pages 258–60.

The October 1965 Survey of Weekly Earnings was a special purpose survey on a different basis from the surveys compared in this section and, therefore, its results are not shown herein. Results of the 1965 survey were published in detail in *Labour Report* No. 52, 1965 and 1966.

In the surveys of October 1962, 1963 and 1964 employees 'whose hours of work were not known' were reported with managerial, etc. staff. Beginning with the October 1966 survey employers were asked to report these employees in their correct classification, and if necessary estimate their hours of work. It is considered that any reporting differences will have had only a slight effect on comparability of the surveys.

The allocation of employees between 'Managerial, executive, professional and higher supervisory staff' and 'All other full-time employees' (as defined) depends upon the employers' interpretation of the definitions (*see* below).

Definitions

The following definitions refer to terms used in the surveys and in the tables in this section.

Employees refers to male and female employees on the pay-roll and who received pay for the last pay-period in October.

Adults includes all employees 21 years of age and over and those employees who, although under 21 years of age, are paid at the adult rate for their occupation.

Juniors refers to those employees under 21 years of age who are not paid at the adult rate for their occupation.

Full-time employees refers to those employees who ordinarily work 30 hours or more a week and who received pay for the last pay-period in October. Included are 'full-time' employees on short-time; 'full-time' employees who began or ceased work during the pay-period; and 'full-time' employees on paid annual leave, paid sick leave, long service leave and paid holidays taken during the pay-period.

Part-time employees refers to employees who ordinarily work less than 30 hours a week. Employees on short-time who normally work 30 hours or more a week are classified as full-time employees.

Other than managerial, etc. staff includes minor supervisory employees, leading hands, clerical and office staff as well as ordinary wages employees. It excludes *managerial, executive, professional and higher supervisory staff* who were not further defined.

Weekly earnings refers to gross earnings for the last pay-period in October before taxation and other deductions have been made. It includes ordinary time earnings, overtime earnings, shift allowances, penalty rates, commission and similar payments; and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the pay-period. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly; paid annual or other leave taken during the pay-period; periodical payments under incentive, piecework, profit sharing schemes, etc.; commissions; annual or periodical bonuses, etc. Retrospective payments are excluded.

Overtime earnings refers to that part of gross earnings for hours paid for in excess of award. standard or agreed hours of work. Overtime earnings were not reported for managerial, etc. staff.

Ordinary time earnings refers to that part of gross earnings for award, standard or agreed hours of work. It includes shift allowances, penalty rates, commissions, bonuses and incentive payments, and that part of paid annual and other leave, which relates to these hours.

Weekly man-hours paid for refers to the sum of man-hours for which payment was made. It includes ordinary time hours, overtime hours, paid stand-by or reporting time; and paid annual leave, paid sick leave, long service leave and paid holidays taken during the specified pay-period. For employees paid other than weekly, hours are converted to a weekly basis. For employees who began or ceased work, or were absent without pay for any reason during the specified week, only the man-hours actually paid for are included. Where agreed hours of work are less than award hours, man-hours are based on agreed hours. Hours of work were not reported for managerial, etc. staff.

Overtime hours refers to hours in excess of award, standard or agreed hours of work.

Ordinary time hours refers to award, standard or agreed hours of work. It includes man-hours of stand-by or reporting time which are part of standard hours of work, and that part of paid annual leave, paid sick leave and long service leave taken during the specified week.

AVERAGE WEEKLY EARNINGS AND HOURS (OVERTIME AND ORDINARY TIME)(*a*), FULL-TIME EMPLOYEES (OTHER THAN MANAGERIAL, ETC. STAFF)(*b*): INDUSTRY GROUPS AUSTRALIA(*c*), OCTOBER 1968(*d*)

Industry group	*Average weekly earnings ($)*			*Average weekly hours paid for*			*Average weekly earnings ($)*			*Average weekly hours paid for*		
	Overtime earnings	*Ordinary time earnings*	*Total*	*Overtime hours*	*Ordinary time hours*	*Total*	*Overtime earnings*	*Ordinary time earnings*	*Total*	*Overtime hours*	*Ordinary time hours*	*Total*
	ADULT MALES						JUNIOR MALES					
Manufacturing—												
Extracting, refining and founding of metals	12.00	61.10	73.10	5.9	39.0	44.8	3.80	36.40	40.20	2.4	39.0	41.4
Engineering and metal-working	13.60	58.50	72.00	6.0	38.7	44.8	3.80	31.00	34.90	3.1	38.5	41.5
Ships, vehicles, parts and accessories	8.00	59.50	67.60	3.5	38.5	41.9	2.70	31.40	34.00	2.2	38.7	41.0
Founding, engineering, vehicles, etc	11.90	59.20	71.10	5.4	38.7	44.1	3.50	32.00	35.50	2.8	38.6	41.4
Textiles, clothing and footwear	8.90	54.20	63.10	4.4	38.8	43 2	3.40	27.70	31.10	2.8	38.0	40.8
Food, drink and tobacco	10.80	52.60	63.50	5.0	38.6	43.6	4.10	28.70	32.80	3.2	38.5	41.7
Paper, printing, bookbinding and photography	8.80	65.70	74.50	3.5	38.6	42.1	2.90	31.60	34.50	2.1	38.7	40.8
Chemicals, dyes, explosives, paints, non-mineral oils	9.90	59.80	69.70	4.6	38.8	43.5	2.90	34.20	37.10	2.0	39.0	41.0
Other	10.60	54.80	65.40	5.1	38.7	43.8	2.80	29.30	32.20	2.4	38.5	40.9
Manufacturing groups	*11.00*	*57.60*	*68.60*	*5.0*	*38.7*	*43.7*	*3.40*	*30.90*	*34.20*	*2.7*	*38.6*	*41.2*
Non-manufacturing—												
Mining and quarrying	13.70	71.90	85.60	6.0	37.4	43.4	6.30	41.70	47.90	3.9	37.8	41.7
Building and construction	16.30	61.20	77.50	6.7	38.5	45.2	2.90	33.40	36.30	2.0	39.1	41.0
Transport and storage	16.70	57.30	74.00	7.2	38 6	45.8	3.80	32.30	36.10	2.9	39.1	41.9
Finance and property	1.30	69.10	70.50	0.6	38.1	38.7	0.60	34.50	35.20	0.5	38.2	38.7
Wholsale trade, primary produce dealing, etc.	5.10	58.70	63.70	2.4	38.9	41.3	1.70	29.60	31.40	1.4	39.0	40.5
Retail trade	4.10	55.70	59.80	2.1	39.7	41.8	2.10	29.30	31.30	1.8	39.5	41.3
Other industries(*e*)	6.40	58.80	65.20	3.1	38.8	41.9	1.70	31.20	32.90	1.4	38.3	39.7
Non-manufacturing groups	*9.00*	*60.40*	*69.40*	*4.0*	*38.7*	*42.7*	*2.00*	*31.40*	*33.30*	*1.6*	*39.0*	*40.5*
All industry groups(*f*)	**10.10**	**58.80**	**69.00**	**4.6**	**38.7**	**43.3**	**2.70**	**31.10**	**33.80**	**2.1**	**38.8**	**40.9**
	ADULT FEMALES						JUNIOR FEMALES					
Manufacturing groups	2.20	35.40	37.60	1.6	37.7	39.3	0.90	23.50	24.40	1.0	38.0	39.0
Non-manufacturing groups	1.10	40.20	41.20	0.7	38.2	38.9	0.40	25.80	26.20	0.4	38.5	39.0
All industry groups(*f*)	**1.70**	**37.60**	**39.30**	**1.2**	**37.9**	**39.1**	**0.60**	**25.00**	**25.60**	**0.6**	**38.4**	**39.0**

(*a*) Average weekly overtime and ordinary time earnings and hours are averages for all employees represented in the survey (*see* page 256). (*b*) Private employees only. Excludes managerial, executive, professional and higher supervisory staff. (*c*) Excludes Northern Territory and Australian Capital Territory. (*d*) Last pay-period in October. For definitions and particulars of coverage of the survey, etc. *see* pages 255–6. (*e*) Includes community and business services; amusement, hotels, cafes, personal service, etc.; electricity, gas, water supply and sanitary services; and forestry, fishing and trapping. (*f*) Excludes rural industry, and private domestic service.

AVERAGE WEEKLY EARNINGS, FULL-TIME EMPLOYEES (OTHER THAN MANAGERIAL ETC. STAFF)(*a*): INDUSTRY GROUPS, AUSTRALIA(*b*), OCTOBER 1966, 1967 AND 1968(*c*)

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Industry group	*Adult males*			*Junior males*			*Adult females*			*Junior females*		
	Oct. 1966	*Oct. 1967*	*Oct. 1968*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*
Manufacturing—												
Extracting, refining and founding of metals	62.80	67.30	73.10	35.80	34.20	40.20	36.40	39.60	42.40	27.70	28.00	30.80
Engineering and metalworking	61.60	65.30	72.00	29.60	32.00	34.90	34.00	35.90	38.10	23.80	25.70	26.40
Ships, vehicles, parts and accessories	60.50	65.10	67.60	28.40	31.60	34.00	35.90	37.20	38.10	25.20	26.70	26.70
Founding, engineering, vehicles, etc.	61.50	65.60	71.10	30.20	32.20	35.50	34.40	36.30	38.30	24.40	26.10	26.90
Textiles, clothing and footwear	57.50	60.00	63.10	29.30	29.70	31.10	33.70	35.70	36.80	21.10	21.10	21.80
Food, drink and tobacco	58.00	62.10	63.50	30.10	33.40	32.80	33.90	36.60	37.40	22.70	25.00	24.80
Paper, printing, bookbinding and photography	66.60	70.50	74.50	29.30	32.20	34.50	36.50	37.60	39.50	24.10	24.50	25.60
Chemicals, dyes, explosives, paints, non-mineral oils	63.00	65.30	69.70	33.30	36.50	37.10	36.30	38.00	40.00	25.70	27.90	29.00
Other	58.50	62.60	65.40	27.80	30.70	32.20	34.10	36.10	36.50	23.60	24.80	24.40
Manufacturing groups	*60.70*	*64.50*	*68.60*	*29.70*	*32.00*	*34.20*	*34.30*	*36.30*	*37.60*	*22.80*	*23.70*	*24.40*
Non-manufacturing—												
Mining and quarrying	76.10	81.50	85.60	35.50	41.00	47.90	42.60	45.30	50.00	28.30	29.70	33.40
Building and construction	67.90	69.40	77.50	29.90	33.00	36.30	39.70	41.50	43.40	25.30	28.60	28.20
Transport and storage	67.60	70.70	74.00	31.40	33.80	36.10	38.30	42.20	44.30	26.40	27.80	28.30
Finance and property	64.30	68.80	70.50	31.90	33.40	35.20	38.90	42.00	44.00	26.30	27.70	28.30
Wholesale trade, primary produce dealing, etc.	57.30	60.00	63.70	28.30	30.40	31.40	37.30	39.40	41.10	24.10	25.50	26.70
Retail trade	54.30	56.40	59.80	26.50	28.30	31.30	35.20	37.70	39.70	22.00	23.50	24.60
Other industries(*d*)	58.50	61.90	65.20	30.50	32.60	32.90	36.70	38.50	40.80	24.40	25.60	25.90
Non-manufacturing groups	*61.90*	*64.70*	*69.40*	*29.10*	*31.10*	*33.30*	*36.80*	*39.20*	*41.20*	*23.90*	*25.40*	*26.20*
All industry groups(*e*)	**61.20**	**64.60**	**69.00**	**29.40**	**31.50**	**33.80**	**35.40**	**37.60**	**39.30**	**23.60**	**24.80**	**25.60**

(*a*) Private employees only. Excludes managerial, executive, professional and higher supervisory staff. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October. For definitions and particulars of coverage of the surveys, etc. *see* pages 255–6. (*d*) Includes community and business services; amusement, hotels, cafes, personal service, etc.; electricity, gas, water and sanitary services; and forestry, fishing and trapping. (*e*) Excludes rural industry, and private domestic service.

AVERAGE WEEKLY HOURS PAID FOR, FULL-TIME EMPLOYEES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*): INDUSTRY GROUPS, AUSTRALIA(*b*) OCTOBER 1966, 1967 AND 1968(*c*)

Industry group	*Adult males*			*Junior males*			*Adult females*			*Junior females*		
	Oct. 1966	*Oct. 1967*	*Oct. 1968*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*
Manufacturing—												
Extracting, refining and founding of metals	44.3	44.5	44.8	41.5	41.5	41.4	39.8	39.9	40.0	39.8	39.7	39.7
Engineering and metal-working	44.2	44.2	44.8	41.5	40.9	41.5	39.7	39.0	39.4	39.7	39.0	39.3
Ships, vehicles, parts and accessories	42.6	43.1	41.9	41.1	41.0	41.0	39.2	39.5	38.9	38.7	38.8	39.1
Founding, engineering, vehicles, etc.	43.8	44.0	44.1	41.4	41.0	41.4	39.6	39.1	39.4	39.6	39.0	39.3
Textiles, clothing and footwear	42.9	42.8	43.2	41.5	41.1	40.8	39.3	39.1	39.1	39.3	39.0	38.3
Food, drink and tobacco	43.5	44.1	43.6	41.4	41.8	41.7	39.5	39.9	39.7	39.2	39.5	39.4
Paper, printing, bookbinding and photography	42.3	42.3	42.1	41.0	41.3	40.8	39.7	39.8	39.2	39.7	39.7	39.6
Chemicals, dyes, explosives, paints, non-mineral oils	42.3	42.5	43.5	39.9	41.3	41.0	39.0	39.2	39.2	39.0	39.0	39.0
Other	43.5	44.0	43.8	40.8	41.7	40.9	39.4	39.8	39.6	38.9	39.1	39.2
Manufacturing groups	*43.5*	*43.7*	*43.7*	*41.2*	*41.3*	*41.2*	*39.4*	*39.3*	*39.3*	*39.3*	*39.2*	*39.0*
Non-manufacturing—												
Mining and quarrying	42.9	43.8	43.4	41.0	41.1	41.7	38.1	38.1	39.4	39.5	38.7	38.7
Building and construction	44.5	43.6	45.2	41.5	41.3	41.0	38.6	38.6	39.0	38.4	39.1	38.9
Transport and storage	46.4	46.6	45.8	42.0	42.3	41.9	39.2	39.4	39.5	39.0	39.1	38.7
Finance and property	38.7	38.7	38.7	38.2	38.5	38.7	37.8	37.9	38.0	38.1	38.1	38.1
Wholesale trade, primary produce dealing, etc.	41.3	41.3	41.3	40.2	40.6	40.5	38.7	39.0	38.7	38.9	38.8	38.8
Retail trade	41.3	41.5	41.8	40.7	41.2	41.3	39.4	39.5	39.2	39.9	39.7	39.9
Other industries(*d*)	41.6	42.0	41.9	39.2	39.8	39 7	39.1	39.0	38.9	38.2	37.8	38.1
Non-manufacturing groups	*42.4*	*42.4*	*42.7*	*40.1*	*40.5*	*40.5*	*39.0*	*39.0*	*38.9*	*39.0*	*38.9*	*39.0*
All industry groups(*e*)	43.0	43.1	43.3	40.7	40.9	40.9	39.2	39.2	39.1	39.1	39.0	39.0

(*a*) Private employees only. Excludes managerial, executive, professional and higher supervisory staff. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October. For definitions and particulars of coverage of the surveys, etc. *see* pages 255–6. (*d*) Includes community and business services; amusement, hotels, cafes, personal service, etc.; electricity, gas, water and sanitary services; and forestry, fishing and trapping. (*e*) Excludes rural industry, and private domestic service.

In the following table the average weekly earnings, average weekly hours paid for, and average hourly earnings at the last pay-period in October for the years 1964 to 1968 are shown for full-time males and females (adult and junior).

AVERAGE EARNINGS AND HOURS FOR FULL TIME EMPLOYEES (OTHER THAN MANAGERIAL, ETC. STAFF)(*a*): ALL INDUSTRY GROUPS, AUSTRALIA OCTOBER 1964 TO 1968(*b*)

State	*Average weekly earnings ($)*				*Average weekly hours paid for*				*Average hourly earnings ($)*			
	Oct. 1964	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*	*Oct. 1964*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*	*Oct. 1964*	*Oct. 1966*	*Oct. 1967*	*Oct. 1968*
Adult males	55.20	61.20	64.60	69.00	42.8	43.0	43.1	43.3	1.29	1.42	1.50	1.59
Junior males	25.90	29.40	31.50	33.80	40.8	40.7	40.9	40.9	0.64	0.72	0.77	0.83
Adult females	32.60	35.40	37.60	39.30	39.4	39.2	39.2	39.1	0.83	0.90	0.96	1.00
Junior females	20.90	23.60	24.80	25.60	39.3	39.1	39.0	39.0	0.53	0.60	0.64	0.66

(*a*) Private employees only. Excludes managerial, executive, professional, and higher supervisory staff. (*b*) Last pay-period in October. For definitions and particulars of the coverage of the surveys, etc. *see* pages 255–6. (*c*) Excludes Northern Territory and Australian Capital Territory.

AVERAGE WEEKLY EARNINGS, FULL-TIME MALE MANAGERIAL, EXECUTIVE, ETC. STAFF(*a*) INDUSTRY GROUPS, AUSTRALIA(*b*), OCTOBER 1966 TO OCTOBER 1968(*c*)

($)

Industry group	*October 1966*	*October 1967*	*October 1968*
Manufacturing—			
Extracting, refining and founding of metals	114.60	120.20	129.40
Engineering and metalworking	99.40	104.60	111.20
Ships, vehicles, parts and accessories	100.30	107.20	109.90
Founding, engineering, vehicles, etc.	100.90	106.60	112.60
Textiles, clothing and footwear	95.00	100.60	103.20
Food, drink and tobacco	97.40	98.00	103.40
Paper, printing, book binding and photography	99.50	109.90	111.40
Chemicals, dyes, explosives, paints, non-mineral oils	109.10	112.90	119.90
Other	96.50	101.40	106.60
Manufacturing groups	*99.50*	*104.60*	*109.80*
Non-manufacturing—			
Mining and quarrying	123.50	134.90	137.50
Building and construction	103.30	103.00	105.30
Transport and storage	97.70	103.60	109.80
Finance and property	106.50	110.80	118.00
Wholesale trade, primary produce dealing etc.	97.00	105.30	110.00
Retail trade	80.70	84.50	88.00
Other industries(*d*)	95.30	102.10	107.50
Non-manufacturing groups	*96.00*	*101.60*	*106.70*
All industry groups(*e*)	**97.50**	**102.90**	**108.10**

(*a*) Private employees only. Includes managerial, executive, professional and higher supervisory staff. For definitions and particulars of coverage of the surveys, etc. *see* pages 255–6. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October. (*d*) Includes community and business services; amusement, hotels, cafes, personal service, etc.; electricity, gas, water and sanitary services; and forestry, fishing and trapping. (*e*) Excludes rural industry, and private domestic service.

AVERAGE WEEKLY EARNINGS, FULL-TIME FEMALE MANAGERIAL, EXECUTIVE, ETC. STAFF(*a*): INDUSTRY GROUPS, AUSTRALIA(*b*), OCTOBER 1963 TO 1968

($)

Survey	*Manufacturing groups*	*Non-manufacturing groups*	*All industry groups(e)*
October(*c*)—			
1963	35.80	40.20	37.80
1964	38.70	44.20	41.40
1966	54.10	55.20	54.80
1967	60.50	58.90	59.40
1968	60.60	63.50	62.50

For footnotes *see* table above.

AVERAGE EARNINGS AND HOURS, PART-TIME EMPLOYEES(*a*): AUSTRALIA(*b*), OCTOBER 1963 TO 1968(*c*)

Survey	*Average weekly earnings ($)*				*Average weekly hours paid for*				*Average hourly earnings ($)*			
	Adult males	*Junior males*	*Adult females*	*Junior females*	*Adult males*	*Junior males*	*Adult females*	*Junior females*	*Adult males*	*Junior males*	*Adult females*	*Junior females*
October(*c*)—												
1963 .	16.20	4.90	14.90	6.10	13.6	7.7	17.2	9.7	1.18	0.64	0.87	0.62
1964 .	16.60	4.70	15.50	4.40	13.4	6.7	17.3	6.4	1.24	0.70	0.90	0.69
1966 .	19.70	4.50	17.70	4.50	14.1	6.1	17.1	7.0	1.40	0.73	1.03	0.65
1967 .	20.10	4.40	18.70	4.60	14.1	5.8	17.3	6.3	1.43	0.76	1.08	0.73
1968 .	21.30	4.50	20.00	5.00	14.1	5.8	17.3	7.4	1.51	0.78	1.16	0.67

(*a*) Private employees only. Part-time employees are those who normally work less than 30 hours a week. For definitions and particulars of coverage of the surveys, etc. *see* pages 255-6. (*b*) Excludes Northern Territory and Australian Capital Territory. (*c*) Last pay-period in October.

Survey of weekly earnings and hours, October 1969

The results of this survey were first published in a mimeographed statement *Survey of Weekly Earnings and Hours, October 1969* (dated 10 June 1970) which also contains comparisons with the surveys of October 1962 to 1968.

Determination of wage rates in Australia

Before June 1967, when the Commonwealth Conciliation and Arbitration Commission decided to eliminate basic wages and margins from Commonwealth awards and to introduce total wages (*see* below), the concept of a basic or living wage was common to wage rates determined by industrial authorities in Australia. Initially, the concept of a basic wage (for adult males) was interpreted as the wage necessary to maintain an average employee and his family in a reasonable state of comfort. However, it was later generally accepted that the basic wage should be fixed at the highest amount which the economy could sustain and that the dominant factor was the capacity of the community to carry the resultant wage levels. Basic wages were determined for adult females as well as for adult males.

In addition to the basic wage, secondary wage payments, including margins for skill, etc. and various kinds of loadings peculiar to the occupation or industry, were determined by industrial authorities. The basic wage and the secondary wage made up the minimum wage rate for a particular occupation.

In the following paragraphs is set out a brief history of the determination of wage rates in Australia by Commonwealth and State industrial authorities. For more detailed information including the history of basic wage determination in Australia *see* previous issues of the Year Book and the annual *Labour Report*.

Commonwealth Basic Wage

Basic wages were a feature of awards of the Commonwealth Conciliation and Arbitration Commission (and the Commonwealth Court of Conciliation and Arbitration) over the period 1907 to 1967.

In 1907 the first declaration of a basic wage ($4.20 a week for Melbourne) was made by Mr Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration. The wage was known as the 'Harvester' wage and the amount was considered reasonable 'for a family of about five'. From this date onwards basic wages became incorporated into Commonwealth awards.

In 1913 the Commonwealth Court of Conciliation and Arbitration took cognisance of the 'A' Series retail price index numbers for the thirty more important towns of Australia published by the Commonwealth Statistician, and as awards came up for review the Court usually revised the basic wage rate of the award in proportion to variations in the retail price index. In 1921 the system of making automatic quarterly adjustments to the basic wage in direct ratio to variations in 'A' Series retail price index numbers was first introduced. The practice of making automatic quarterly adjustments to the basic wage in proportion to variations in retail price index numbers continued until September 1953.

In addition to the automatic adjustments to the basic wage described in the previous paragraph, basic wage rates in Commonwealth awards were varied as a result of basic wage or national wage inquiries. The last time basic wages were varied in this way was in July 1966, when, as a result of the Basic Wage, Margins and Total Wage Cases of 1966, rates were increased by $2 a week for adult males and $1.50 a week for adult females. At that time Commonwealth basic wage rates for capital cities ranged from $31 to $33.50 a week for adult males and from $23.25 to $25.10 a week for adult females. These rates continued to operate until the decision of the Commonwealth Conciliation and Arbitration Commission in the National Wage Cases of 1967 to eliminate basic wages and margins from Commonwealth awards and introduce total wages to operate from the beginning of the first pay-period to commence on or after 1 July 1967 (*see* page 263).

For table showing Commonwealth basic wage rates for adult males and adult females *see* previous issues of the Year Book and the Appendix to *Labour Report* No. 53, 1967.

Basic wage rates for females

As a result of the 1949–50 Basic Wage Inquiry the Commonwealth Court of Conciliation and Arbitration fixed the basic weekly wage for adult females at 75 per cent of the corresponding male rate from the beginning of the first pay-period commencing in December 1950. This percentage continued to be prescribed in subsequent inquiries and operated until the basic wage was eliminated from Commonwealth Awards in July 1967 (*see* above). Prior to December 1950 the relationship of female basic wages to male basic wages varied from award to award, but was generally between 54 and 56 per cent.

For further particulars regarding female basic wage rates *see Labour Report* No. 46, pages 75–81. Tables of rates are published in the Appendix to *Labour Report* No. 53, 1967.

Basic wage rates, Australian Territories

The determination of basic wage rates in the Northern Territory and the Australian Capital Territory came within the jurisdiction of the Commonwealth Conciliation and Arbitration Commission. Basic wage rates were eliminated from awards operating in these Territories in July 1967 (*see* above), and total wages were introduced. For tables of basic wages in the Northern Territory and the Australian Capital Territory *see* Appendix to *Labour Report* No. 53, 1967. For further information on the determination of basic wages in the Territories *see* previous issues of the Year Book and the annual *Labour Report*.

Commonwealth wage margins

In addition to basic wage rates, awards of Commonwealth and State industrial tribunals specified secondary wage payments consisting of margins and loadings. Margins have been defined as 'minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether those features are skill or experience required for the performance of that work, its particularly laborious nature, or the disabilities attached to its performance.'

In the Commonwealth jurisdiction prior to 1954 the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunicated by the Court in the Engineers Case of 1924, the Merchant Service Guild Case in 1942, and the Printing Trades Case of 1947. Major decisions of the Commonwealth Court of Conciliation and Arbitration, and later the Commonwealth Conciliation and Arbitration Commission, affecting margins in Commonwealth awards were made in 1954, 1959, 1963, 1965, and 1966. Details of these decisions can be found in earlier issues of the Year Book and the annual *Labour Report*.

As a result of a decision of the Commonwealth Conciliation and Arbitration Commission in the National Wage Cases of 1967, basic wages and margins were eliminated from Commonwealth awards and total wages were introduced with effect from the beginning of the first pay-period to commence on or after 1 July 1967.

Commonwealth work value inquiries

In addition to variations of wage margins in Commonwealth awards as a result of the general inquiries in 1954 to 1966 (*see* above), variations of margins for various occupations were made by the Commission as individual awards came up for review or upon application by trade unions. Similar procedures existed in regard to awards of State industrial tribunals.

As a result of its decision in the Basic Wage, Margins and Total Wage Cases of 1966, the Commonwealth Conciliation and Arbitration Commission, over the period September 1966 and November 1967, undertook a work value inquiry concerning classifications appearing in the Metal Trades award. On 11 December 1967 the Commission issued a majority decision (Gallagher *J.* and Commissioner Winter, with Moore *J.* dissenting), granting increases to adult male classifications to operate from the beginning of the first pay-period commencing on or after 22 January 1968. Of the total 320 classifications, 18 classifications received no increase, 178 received $1, 9 received $1.30, 27 received $2.75, 16 received $3.75, 47 (tradesmen) received $7.40, and the remaining 25 classifications varying amounts varying between 10 cents and $10.05 per week. Adult females received proportionate increases. Further details appear in the previous issue of the Year Book.

Following applications by employers concerning the question of absorption in over-award payments of the increases granted to the metal trades in December 1967, the Commonwealth Conciliation and Arbitration Commission heard submissions by employers and trade unions on 14 to 16 February 1968. The pronouncement of the majority of the Commission was made on 21 February 1968.

The Commission, in its pronouncement, made the following decisions. The work value decisions of the Commission in December 1967 (*see* above) in regard to its amounts should stand. However it was decided that 70 per cent of the prescribed increases should be payable in accordance with the decision of 11 December and that 30 per cent should be deferred. But where the increase was $1.60 or less per week, the full amount should be paid without deferment, and where the increase was more than $1.60 the increase payable without deferment should be at least $1.60. The decision applied to increases granted to adult males and adult females. Adjustments to rates would be in multiples of 5 cents.

The bench of the Commission, which would deal with the economic wage case expected to commence on 6 August 1968, should decide when the deferred portion of the increases should be payable.

On 6 August 1968 the Commonwealth Conciliation and Arbitration Commission decided that the metal trades increases deferred by the February decision (*see* above) would become payable from the beginning of the first pay period commencing on or after 21 August 1968.

Commonwealth total wages

In the national wage cases of 1964 and 1965 applications by employers that basic wages and margins should be deleted from Commonwealth awards and total wages introduced were rejected by the Commonwealth Conciliation and Arbitration Commission. However, in its decisions in the Basic Wage, Margins and Total Wage Cases of 1966 the Commission decided to defer the conversion of the wage structure to the basis of a single wage pending further consideration of the present structure of marginal rates (*see* page 262) and further argument. As a result of the National Wage Cases of 1967, in which the employers again applied for a total wage, the Commonwealth Conciliation and Arbitration Commission announced the elimination of basic wages and margins from Commonwealth awards and the introduction of total wages. The total wages were arrived at by adding an amount of $1 a week to the weekly award wages for each adult male and adult female classification to operate from the beginning of the first pay-period to commence on or after 1 July 1967.

Trade unions unsuccessfully challenged in the High Court the abolition of basic wages and the adoption of total wages by the Commonwealth Commission.

On 4 October 1968 in its decision in the National Wage Case 1968 the Commonwealth Conciliation and Arbitration Commission increased all wage rates for adults (male and female) in Commonwealth awards by $1.35 a week. The minimum wage for adult males was increased by the same amount. Male and female juniors including apprentices received proportionate increases. The variations came into operation from the beginning of the first pay-period commencing on or after 25 October 1968.

On 1 December 1969 the Commonwealth Conciliation and Arbitration Commission made the following decisions in the National Wage Case 1969. An increase of 3 percent was awarded to total award wages of adult males and females other than the minimum wage for adult males which was increased by $3.50 per week. Male and female juniors and apprentices also received a 3 per cent increase in their wage rates. All these variations operated from the beginning of the first pay period commencing on or after 19 December 1969.

Commonwealth minimum wage

In July 1966 the Commonwealth Conciliation and Arbitration Commission, in its decisions in the Basic Wage, Margins and Total Wage Cases of 1966, inserted in Commonwealth awards provisions for a minimum wage for adult males. The Commission said that it had given detailed consideration to lower paid classifications in the Metal Trades Award and had decided to grant some immediate relief to low wage earners. The Commission in its judgment said that it intended to insert a new provision in awards by which it would be prescribed that no adult male employee should be paid as a weekly wage for working the standard hours of work an amount less than the minimum wage, i.e. his appropriate basic wage rate plus $3.75 a week. The minimum wage was prescribed for adult male employees only and was applied for all purposes of the award, for example, in calculation of overtime and other penalty rates, piece-work, casual employment, sick leave and annual leave. The Commission stated that the provision for a minimum wage for adult male employees was designed to meet the circumstances of employees in the lowest classifications who were in receipt of award rates and no more. It was not intended to affect the wage of any employee who was already receiving the prescribed minimum through over-award payment. The provision for a minimum wage for adult males operated from the beginning of the first pay-period to commence on or after 11 July 1966. The rates of minimum wage for adult males inserted in Commonwealth awards ranged from $34.75 to $37.25 a week for capital cities. These rates were increased by $1 a week as a result of the decision of the Commonwealth Conciliation and Arbitration Commission in the National Wage Cases of 1967, the increases to operate from the beginning of the first pay-period commencing on or after 1 July 1967. Increases of $1.35 a week operated from the beginning of the first pay-period commencing on or after 25 October 1968 as a result of the National Wage Case 1968. As a result of the National Wage Case 1969 increases of $3.50 per week operated from the beginning of the first pay-period commencing on or after 19 December 1969.

Equal pay

Two benches of the Commonwealth Conciliation and Arbitration Commission sat jointly from 25 February 1969 to 22 May 1969 to take evidence and hear argument on trade union claims for equal pay between the sexes in the Equal Pay Cases 1969.

Both benches of the Commission reached a common conclusion and on 19 June 1969 published their decision and reasons for their decision. The Commission said it was prepared to implement the principal of equal pay for equal work by introducing into Commonwealth awards and determinations the principles contained in State Acts on equal pay. The Commission stated that no increases should be granted to adult females without an examination of the work done. It also suggested a number of principles to be applied in deciding applications for equal pay. In summary these were: (i) the work considered should be restricted to that performed by both adult males and adult females under terms of the same determination or award; (ii) the work should be the same or of a like nature and of equal value (from the point of view of wage or salary assessment), and to be of the same range and volume and performed under the same conditions; (iii) consideration should be restricted to the general work situation under the determination or award and not to that of one establishment; and (iv) equal pay should not be provided where the work is essentially or usually performed by females but upon which male employees may also be employed.

The Commission decided that implementation of equal pay should be spread over a period so that as from 1 January 1970 implementation would be the same as that under South Australian, Western Australian and Tasmanian Acts. Where a decision was reached prior to 1 October 1969 the female rate would become 85 per cent of the male rate from the beginning of the first pay period to commence on or after 1 October 1969, increase to 90 per cent of the male rate from the beginning of the first pay period to commence on or after 1 January 1970, increase to 95 per cent of the male rate from the beginning of the first pay period to commence on or after 1 January 1971, and become equal to the male rate from the beginning of the first pay period to commence on or after 1 January 1972. Where a decision was reached on or after 1 October 1969 it should not operate retrospectively. For decisions reached between 1 October 1969 and up to 1 January 1970, 85 per cent of the male rate at the date of operation should apply, and so on according to the above scale. No female rates should be reduced by operation of these formulae.

Determination of wage rates in State awards, etc.

New South Wales

The first determination of a standard living wage for adult male employees under New South Wales State awards operated from 16 February 1914, when the Court of Arbitration fixed the rate at $4.80 a week for the metropolitan area. The first living wage for adult females ($3.00 a week) was declared by the Board of Trade to operate from 17 December 1918.

From 1926 to 1937 basic wage rates were determined by the Industrial Commission of New South Wales. From July 1927 a State scheme of child endowment became operative in New South Wales, and this continued until superseded by the Commonwealth Government scheme in July 1941.

From October 1937 to October 1955 the State adult male basic wage for Sydney was the same as the Commonwealth basic wage for Sydney. From the beginning of the first pay-period in November 1955 the State basic wage was automatically adjusted each quarter in accordance with movements in retail price index numbers. (Automatic adjustment of Commonwealth basic wages was discontinued in September 1953.) These automatic adjustments continued until October 1964, when legislation provided that the Commonwealth basic wage for Sydney should apply in State awards and industrial agreements to operate from the beginning of the first pay-period which commenced on or after 19 June 1964.

Between October 1937 and November 1950 the State adult female basic wage for Sydney was 54 per cent of the adult male rate. In December 1950 the adult female rate became 75 per cent of the adult male rate. From January 1963 for male and female employees performing work of the same or like nature and of equal value, the Industrial Commission may prescribe in State awards the same basic wage and secondary wage. In March 1967 the Industrial Commission in Court Session, when considering the adoption of Commonwealth marginal increases for State awards, stated that the general principal in future would be to inject Commonwealth wage increases on economic grounds into the State award structure.

Following the increase of $1 a week in total wages in Commonwealth awards in July 1967, the Industrial Commission increased award rates of wages and salaries for adult males and adult females by the addition of a fixed loading of $1 per week, described as 'July 1967 economic loading', to take effect from the beginning of the first pay period to commence on or after 1 July 1967. Subsequently legislation increased the basic wage for adult males from $33.50 to $34.50 per week and for adult females from $25.10 to $26.10 per week to operate from 1 January 1968. The increase of $1 per week in each basic wage absorbed the 'July 1967 economic loading', which was deleted from State awards and agreements. The legislation also provided for the adjustment of wage rates in State awards by the Industrial Commission subsequent to a decision of the Commonwealth Conciliation and Arbitration Commission to vary Commonwealth wage rates wholly or partly on economic grounds. Changes in the State basic wage for adult males shall not be more than the amount of increase in Commonwealth minimum wages for adult males, and the increase in the adult female basic wage not less than 75 per cent of the increase in the male basic wage. The Industrial Commission and Conciliation Committees were given power to include provisions for minimum wages for adult males or adult females in State awards.

The Industrial Commission of New South Wales increased the basic wages for adult males and adult females by $1.35 a week from the beginning of the first pay-period commencing on or after 25 October 1968. The weekly basic wage rates then became $35.85 for adult males and $27.45 for adult females.

The Industrial Commission of New South Wales on 12 December 1969 determined that rates of wages for timeworkers in State awards should increase by 3 per cent and this resulted in increased basic wages, margins and certain loadings. The adult male basic wage increased by $1.05 to $36.90 per week and the adult female basic wage by 85c to $28.30 per week. Marginal rates for adult males and adult females were increased by 3 per cent as also were certain loadings (e.g. shift allowances, leading hand allowances). Junior rates of pay were also increased by 3 per cent. These variations operated from the beginning of the first pay period commencing on or after 19 December 1969.

Further information on New South Wales basic wages is published in previous issues of the Year Book and the annual *Labour Report*. State basic wage rates for Sydney are published in the Appendix to *Labour Report* No. 53, 1967.

Victoria

In Victoria, Wages Boards constituted for each industry group or calling from representatives of employers and employees with an independent chairman determine rates of wages and conditions of work.

Except for the period November 1953 to August 1956, when automatic quarterly adjustments to the basic wage in Wages Board determinations operated, Wages Boards in determining wage rates had adopted Commonwealth basic wage rates. The basic wage rates of August 1956 continued to operate until June or July 1959 when the Commonwealth rates for Melbourne, determined as a result of the 1959 Basic Wage Inquiry, were incorporated into Wages Board determinations.

Subsequent to the decisions of the Commonwealth Conciliation and Arbitration Commission in the National Wage Cases of 1967 (*see* page 263), the Industrial Appeals Court decided that basic wages and margins for adult males and adult females should be deleted from Wages Board determinations and that wage rates expressed as total wages should operate from the beginning of the first pay-period in July 1967. At the same time total wages for both adult males and females were increased by $1 a week.

Total wages for both adult males and adult females in Wages Board determinations were further increased by $1.35 a week operative from the beginning of the first pay-period commencing on or after 25 October 1968.

On 23 December 1969 the Industrial Appeals Court ordered that wage rates in Wages Board determinations should be increased by 3 per cent operative from the beginning of the first pay-period commencing on or after 19 December 1969. The Court also ordered that a minimum wage for adult males of $42.30 a week should operate in all determinations from the same operative date.

For further information on basic wages in Victorian Wages Board determinations *see* previous issues of the Year Book and the annual *Labour Report*. Rates for adult males and adult females from November 1953 are published in the appendix to *Labour Report* No. 53, 1967.

Queensland

The first formal declaration of a basic wage in Queensland determined a basic wage of $8.50 for adult males and $4.30 for adult females to operate from 1 March 1921. Prior to this declaration the rate of $7.70 a week for adult males had been generally recognised in awards as the 'basic' or 'living' wage.

Since 1961 the full bench of the Industrial Conciliation and Arbitration Commission, consisting of not less than three Commissioners, has power to make declarations concerning the basic wage for males and females and the standard hours of work. The basic wage for adult males must be sufficient to maintain an employee, his wife, and family of three children in a fair and average standard of comfort. The basic wage for adult females should be not less than is sufficient to enable an employee to support herself in a fair and average standard of comfort. All persons interested must be given an opportunity to be heard before any general declaration regarding the basic wage is made, and the Commission must take into consideration any probable economic effect of such declaration. From 1 May 1961 the basic wage for adult females has been 75 per cent of the male rate.

In March 1965 the Commission stated that it had been decided as a matter of policy, that in the future, it did not propose to deal with an application to vary the basic wage solely because of a change in the Consumer Price Index, unless such a change warranted an alteration of 40 cents or more in the basic wage for adult males.

Following the decision of the Commonwealth Conciliation and Arbitration Commission to increase total wages by $1 a week in July 1967, the Industrial Commission increased all award rates of pay for both adult males and adult females by $1 per week to operate from 3 July 1967.

The Industrial Conciliation and Arbitration Commission decided on 25 October 1968 that the increase of $1.35 per week for adult males and adult females granted by the Commonwealth Conciliation and Arbitration Commission (*see* page 264) should flow to Queensland State awards, and that the increases should be added to basic wages and operate from 28 October 1968. The Commission also decided that the basic wage concept should be maintained and that the $1 increase granted to adult males and females in July 1967 should be absorbed in the basic wages.

The basic wage rates payable in the Southern Division (Eastern District) including Brisbane were $35.55 for adult males and $27.25 for adult females operative from 28 October 1968. For basic wages in other areas of the State district allowances are added to these rates (*see* previous issues of the Year Book and the annual *Labour Report*).

The Industrial Conciliation and Arbitration Commission of Queensland on 12 December 1969 declared that the basic wages for the Eastern District of the Southern Division should be increased by $1.10 for adult males to $36.65 per week and by 80 cents for adult females to $28.05 per week as from 22 December 1969. The Commission further declared by way of a general ruling that the ascertainable marginal content of each adult male and female wage or salary rate should be increased by 3 per cent from the same date of operation. The rates of pay for juniors were increased proportionally to the adult increases.

For further particulars of basic wage determination in Queensland see previous issues of the Year Book and the annual *Labour Report*. Tables of basic wages are published in the Appendix to *Labour Report* No. 53, 1967.

South Australia

The first declaration of a living wage for adult male employees in the metropolitan area was $7.95 a week operative from 4 August 1921. The first adult female living wage of $3.50 a week operated from 1 September 1921.

Before July 1966 the Board of Industry had power to declare after public inquiry living wages to be paid to adult males and adult females. Since that date the power has been vested in the Industrial Commission constituted by the President and two Commissioners. However, the South

Australian Industrial Code also provides for the declaration of living wages by proclamation to prevent unjustifiable differences between State and Commonwealth rates of wages. This latter method has been used in recent years to declare living wages.

The State living wage for adult males was the same as the Commonwealth basic wage for Adelaide from February 1950 to July 1967, when basic wages were deleted from Commonwealth awards and total wages introduced. The State living wage for adult females was the same as the Commonwealth basic wage for Adelaide from December 1950 to July 1967 and was 75 per cent of the adult male rate.

Following the increase of $1 a week in total wages in Commonwealth awards in July 1967 (*see* page 263), by proclamation the State living wages for both adult males and adult females were increased by $1 a week to operate from 3 July 1967. Further increases of $1.35 a week were proclaimed to operate from 28 October 1968. The rates then became $34.65 for adult males and $26.55 for adult females.

A minimum wage for adult males similar in concept to the Commonwealth award provisions of a minimum wage (*see* page 263) operates in South Australian State awards. From 28 October 1968 the rate prescribed was $38.40 a week.

The South Australian Industrial Commission granted the following increases in State awards from 22 December 1969. An 'economic loading' of 3 per cent of the sum of the living wage plus margins was included in all awards and the minimum wage for adult males was increased by $3.50 to $41.90 per week.

For further information on South Australian living wages see previous issues of the Year Book and the annual *Labour Report*. Tables of living wages are published in the Appendix to *Labour Report* No. 53, 1967.

Western Australia

The first declaration of the basic wage by the Court of Arbitration operated from 1 July 1926, when rates of $8.50 for adult males and $4.59 for adult females were fixed.

Before December 1966 the Western Australian Industrial Commission in Court Session consisting of three Commissioners (previously the Court of Arbitration) could declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determination should be made within twelve months of the preceding inquiry. Legislation also provided that the Commission (or the Court) might make adjustments to the basic wage each quarter after considering retail price index numbers.

From August 1931 to September 1964 separate basic wages were declared for three areas of the State, namely (a) the metropolitan area, (b) south-west land division, and (c) goldfields areas and other parts of the State. In September 1964, when the Commission increased the basic wage after an inquiry, one rate was declared for the whole of the State.

In December 1951 the basic wages for adult females became 65 per cent of the corresponding male rate, and in January 1960 this proportion was increased to 75 per cent. In each case marginal rates of pay for females were reduced or deleted to offset the increase in the female basic wage.

In December 1966 legislation provided that the Western Australian basic wage rates should be the same as the Commonwealth Six Capitals rates as soon as these exceeded the State rates ($33.50 a week for adult males and $25.13 a week for adult females) operative from 24 October 1966.

Following the decision of the Commonwealth Conciliation and Arbitration Commission to increase total wages by $1 a week from July 1967 (*see* page 263), the Industrial Commission made the following decisions. Wage rates for adult males not in receipt of the minimum weekly wage and for adult females were increased by 60 cents a week by way of a special loading. The minimum weekly wage for adult males (*see* page 263) payable under certain awards was increased from $36.55 to $37.55 a week. These increases operated from the beginning of the first pay-period commencing on or after 1 July 1967.

In October 1968 the Western Australian Industrial Commission decided upon application by trade unions, to increase by $1.35 a week the special loading of 60c (*see* above) payable to adult males and adult females, to operate from the beginning of the first pay-period commencing on or after 25 October 1968. At the same time the Commission increased the minimum wage for adult males from $37.55 to $38.90 a week.

Legislation operative from 22 November 1968 fixed the basic wage for adult males at $35.45 and for adult females at $27.08 a week. These new rates absorbed the special loading of $1.95 a week which was deleted from awards. The legislation also provided for the Commission to review the basic wage at least every twelve months, the variations in the basic wage to take effect only after the expiration of twelve months from the last variation unless there were special reasons. The Commission was also required, upon application, to insert in awards provision for equal pay for male and female workers performing work of the same or like nature and of equal value. If application for equal pay was made before 30 June 1970 the difference in male and female basic wages would be removed not later than 1 January 1972. The equal pay provisions do not apply to persons engaged in work essentially or usually performed by female workers but upon which males may be employed.

The Western Australian Industrial Commission on 21 November 1969 increased the adult male basic wage by $1.00 to $36.45 per week and the adult female basic wage by 80c to $27.88 per week operative from 24 November 1969. Later, following the decision in the National Wage Case, the Commission increased the minimum wage for adult males in State awards by $3.50 to $42.40 per week operative from the beginning of the first pay period commencing on or after 19 December 1969.

More detailed information on State basic wages in Western Australia appear in earlier issues of the Year Book and the annual *Labour Report*. Basic wage rates for the metropolitan area are published in the Appendix to *Labour Report* No. 53, 1967.

Tasmania

Wages Boards are constituted for a number of industries from representatives of employers and employees with an independent chairman (common to all Wages Boards) with power to determine rates of wage in each industry.

Except for the period February 1956 to August 1956, when Wages Boards adjusted basic wages in accordance with movements in retail price index numbers, Wages Boards generally adopted Commonwealth basic wage rates. From August 1956 the basic wages in determinations remained unchanged until July 1959, when the rates were made the same as the Commonwealth basic wages.

In January 1961 Wages Boards adopted the basic wage for Hobart as the uniform rate applicable throughout the State. During 1962 a number of Wages Boards provided in their determinations for the automatic adoption of Commonwealth basic wages as and when they varied.

In July and August 1967, subsequent to the increase of $1 in total wages in Commonwealth awards, Wages Boards varied their determinations by increasing basic wages for adult males and adult females by $1 a week.

In November 1968 the Chairman of Wages Boards recommended a $1.35 increase in the basic wage for adult males and adult females in Wages Board determinations. The new basic wages operative from the beginning of the first pay-period commencing on or after 15 October 1968 became $35.75 a week for adult males and $27.40 for adult females. The increase also applied to the minimum wage for adult males (*see* page 263) which rose from $38.15 to $40.45 a week.

Wages Board determinations were amended as follows, these variations operating from the beginning of the first pay period commencing on or after 19 December 1969. The adult male basic wage was increased by $1.05 to $36.80 per week and the adult female basic wage by 80c to $28.20 per week. Margins were increased by 3 per cent and the minimum wage for adult males was increased by $2.55 to $43.00 per week.

Further details of basic wages in Tasmanian Wages Board determinations are published in earlier issues of the Year Book and the annual *Labour Report*. Hobart basic wage rates adopted by Wages Boards from February 1956 are published in the Appendix to *Labour Report* No. 53, 1967.

Annual leave

As summarised in the following paragraphs, the majority of employees in Australia at present receive at least three weeks' paid annual leave. Further information will be found in previous issues of the Year Book.

In its judgment in the Three Weeks Annual Leave Inquiry, 1963, the Commonwealth Conciliation and Arbitration Commission said that it would implement its intention of granting three weeks' annual leave generally in secondary industry, subject to special cases. A period of twenty-one consecutive days' leave would be allowed to employees who had completed twelve months' continuous service by or after 20 November 1963.

Employees in New South Wales in private industry, other than those covered by Federal awards, were granted three weeks' annual leave by an amendment to the Annual Holidays Act passed in 1958. In 1964 the State Government granted its employees four weeks' annual leave effective from 1 January 1964. From 29 September 1964 annual holiday pay for employees covered by provisions of the Annual Holidays Act has been calculated on the basis of the employee's current weekly earnings instead of current award rates.

Following the decision of the Commonwealth Conciliation and Arbitration Commission in 1963 (*see* above) individual Victorian Wages Boards commenced to alter provisions of their determinations to grant employees an extra week of leave. By September 1963 the majority of Boards had included three weeks' annual leave in their determinations.

In June 1963 the Full Bench of the Queensland Industrial Conciliation and Arbitration Commission granted an extra week of annual leave to employees under State awards with twelve months' continuous service on or after 30 November 1963. The decision applied to day workers and non-continuous shift workers receiving two weeks' leave; continuous shift workers receiving three weeks' leave; and day workers and shift workers receiving additional leave in lieu of extra payment for working on statutory holidays. The order became effective as from 1 June 1963.

The Full Bench of the South Australian Industrial Court in May 1963 announced an increased standard of annual leave in the State, adopting three weeks as the standard as fixed by the Commonwealth Conciliation and Arbitration Commission (*see* above).

Following a general inquiry concerning Annual Leave and Public Holidays the Western Australian Court of Arbitration in June 1963 adopted three weeks as the new standard for the normal period of annual leave in State awards, with four weeks for seven-day shift workers. The date of operation was the same as that decided by the Commonwealth Conciliation and Arbitration Commission (*see* above). The standard number of public holidays was retained at ten a year.

Following an amendment to the Wages Board Act in 1961, Tasmanian Wages Boards were permitted to grant employees up to three weeks' paid recreational leave. Between June 1962 and early 1963 determinations of Wages Boards were amended to provide for three weeks annual leave for employees, to operate from 1 January 1963.

Long service leave

Paid long service leave, i.e. leave granted to workers who remain with the one employer over an extended period of time, has been included in the provisions of Commonwealth and State industrial legislation and industrial awards, and a brief summary is given in the following paragraphs. After fifteen years' continuous employment with the one employer, most employees in Australia are now entitled to at least thirteen weeks' paid long service leave. In all cases the transfer of ownership of a business does not constitute a break in continuity of service with the same employer. Further information is contained in previous issues of the Year Book.

Commonwealth

Until May 1964 the Commonwealth Conciliation and Arbitration Commission had not included provisions for long service leave in its awards, and had refrained from determining disputes relating to this subject except in the case of the Northern Territory and the Australian Capital Territory (*see* below). Consequently, until then, the provisions of the various State Acts relating to long service leave applied to workers covered by awards of the Commonwealth.

In May 1964, following hearing of claims for insertion of long service leave provisions in Commonwealth awards, the Full Bench of the Commonwealth Conciliation and Arbitration Commission announced its decision that long service leave entitlement would be calculated on the basis of thirteen weeks for twenty years of unbroken employment, in respect of employment before 11 May 1964 (or, in New South Wales, 1 April 1963), and at the rate of thirteen weeks for fifteen years in respect of service after 11 May 1964 (or, in New South Wales, 1 April 1963). After further periods of ten years, employees would be entitled to an additional *pro rata* period of leave calculated on the same basis. Those employees who completed an unbroken contract of employment of ten years but less than fifteen years, and whose employment was terminated by death or by the employer for any cause other than serious and wilful misconduct, or by the employee on account of illness, incapacity or domestic or other pressing necessity, would be entitled to *pro rata* payment. The rates of payment while on leave would be current award rates which would be subject to basic wage changes and marginal adjustments which occurred during the leave period.

Australian Territories. Long service leave codes for employees covered by Northern Territory and Australian Capital Territory awards were originally prescribed on 4 December 1961 by the Commonwealth Conciliation and Arbitration Commission in Presidential Session. The Commission decided that employees should be granted three months' long service leave after twenty years' service with one employer, even if part of this service was outside the Territory. In addition, the Australian Capital Territory code prescribed that employees presently employed might 'go back for a period of 25 years in regard to the calculation of their present or future entitlement of long service leave'. In December 1964 the Commission amended the majority of awards covering employees in the Northern Territory and the Australian Capital Territory by granting long service leave on the basis of thirteen weeks after fifteen years' service.

Stevedoring Industry. The *Stevedoring Industry Act* 1962, which came into force on 19 November 1962, amended the *Stevedoring Industry Act* 1956–1961 by extending the eligibility and qualifying periods of the long service leave provisions of the Act. No changes were made to the entitlement for long service leave, which remained at thirteen weeks after twenty years' qualifying service and six and a half weeks for each subsequent ten years' qualifying service. The *Stevedoring Industry Act* 1966, which operated from 29 October 1966, reduced the qualifying period for thirteen weeks leave from twenty years to fifteen years.

New South Wales

Long service leave was first introduced for the majority of workers by the Industrial Arbitration Act, 1951, which provided such leave for workers under State awards. This Act was replaced by the Long Service Leave Act, 1955, which extended the benefits to any worker within the State. An amendment to the Act in April 1963 provided for three months' long service leave for fifteen years' continuous service with the same employer and proportionate amounts on the same basis after a minimum of five years' service. The Long Service Leave (Metalliferous Mining Industry) Act, 1963 conferred on certain workers in the metalliferous mining industry the right to three months' long service leave after ten years' service. This Act operated from 1 January 1964.

Victoria

The *Factories and Shops (Long Service Leave) Act* 1953 first provided for long service leave for workers in Victoria, the provisions of this Act being subsequently incorporated in the Labour and Industry Act. Leave provided for was thirteen weeks for twenty years' continuous service with the same employer. Contributions by employers to retirement schemes were to be taken into consideration in dealing with exemptions from the Act.

An amendment to the Labour and Industry Act in December 1964 granted employees, from 1 January 1965, thirteen weeks' leave after fifteen years' continuous service. Workers who terminated their employment after ten years but less than the qualifying fifteen years would be able to obtain a *pro rata* entitlement subject to the existing special conditions of the Act. Following amendment to the Public Service Act in 1964, public servants became entitled to four and a half months' leave after fifteen years' service instead of six months after twenty years.

Queensland

In 1952 the Industrial Conciliation and Arbitration Acts were amended to include long service leave provisions for employees within the jurisdiction of the Industrial Court, and the Acts were amended again in 1955 to extend these provisions to any employee in respect of whose employment there was not in force an award or industrial agreement under the Act and to seasonal workers in sugar mills and meat works. Leave provided for was thirteen weeks for twenty years' continuous service with the same employer.

An amendment to The Industrial Conciliation and Arbitration Acts was passed and assented to in December 1964, granting employees long service leave of thirteen weeks after fifteen year's continuous service. The amendment retained *pro rata* leave entitlement after ten years' service and operated on and from 11 May 1964.

South Australia

The Long Service Leave Act, 1967 provides for thirteen calendar weeks' leave after fifteen years' service with the same employer and for eight and two-thirds weeks' leave for each subsequent complete period of ten years' service. After seven and before fifteen completed years of service the worker is entitled on termination of employment to proportionate payment in lieu of leave for the period worked, except in certain specified circumstances. Entitlement for qualifying service prior to January 1966 is to be calculated at the rate of thirteen week's leave for twenty years' service, and an employer shall not be required to grant leave until the worker's total entitlement is thirteen weeks.

An employer may be exempted by the Industrial Commission from the leave entitlement provisions of the Act provided that the employees are entitled under some other scheme to long service leave benefits no less favourable than those provided by the Act.

Western Australia

The Long Service Leave Act was passed in 1958, but it did not apply to employees whose conditions of work were regulated under the Western Australian Industrial Arbitration Act. The Court of Arbitration of Western Australia in an order dated 1 April 1958 incorporated in most of the awards and agreements within its jurisdiction provisions similar to those in the Long Service Leave Act.

Leave provided for was thirteen weeks for twenty years' continuous service with the same employer. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions from the Act.

In September 1964 the Industrial Commission began to amend the long service leave provisions of its awards and industrial agreements to provide for thirteen weeks' leave after fifteen years' service on or from 1 October 1964. *Pro rata* entitlement would accrue after ten years' service. The *Long Service Leave Amendment Act (No. 2) 1964*, introduced in October 1964, was in the same terms as the amendments made by the Commission to the various awards and agreements.

Tasmania

The Long Service Leave Act, which was passed in 1956, provided for thirteen weeks' leave for twenty years' continuous service with the same employer. Contributions by employers to retirement schemes could be taken into consideration in dealing with exemptions from the Act. An amendment to the Long Service Leave Act, assented to on 17 December 1964, granted thirteen weeks' leave after fifteen years' continuous service. The amendment operated on and from 11 May 1964.

INDUSTRIAL DISPUTES

Detailed information regarding industrial disputes involving stoppage of work is given in the *Labour Report*. A table showing statistics of industrial disputes for each year from 1913 is contained in the Appendix to *Labour Report* No. 53, 1967.

Particulars of all disputes in progress during the year are included in the annual figures, whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of 'the number of disputes' and 'workers involved' in disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years.

The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1969, classified according to industry groups.

INDUSTRIAL DISPUTES(*a*): INDUSTRY GROUPS, AUSTRALIA, 1969

Industry group	*Number*	*Workers involved*			*Working days lost*	*Estimated loss in wages* ($'000)
		Directly	*Indirectly* (*b*)	*Total*		
Agriculture, grazing, etc.	..	..	..	..	..	..
Coal mining	235	53,666	..	53,666	76,100	941.3
Other mining and quarrying	39	17,491	3,315	20,806	76,863	1,277.3
Engineering, metals, vehicles, etc.	543	358,584	8,356	366,940	643,569	7,415.3
Textiles, clothing and footwear	10	7,375	85	7,460	10,826	113.6
Food, drink and tobacco	190	75,775	7,757	83,532	119,027	1,291.3
Sawmilling, furniture, etc.	1	5,734	32	5,766	7,818	79.7
Paper, printing, etc.	25	11,227	393	11,620	27,897	343.0
Other manufacturing	165	59,938	1,389	61,327	155,177	1,946.6
Building and construction	273	186,818	855	187,673	276,350	3,667.1
Railway and tramway services	27	96,183	17,527	113,710	153,391	1,532.2
Road and air transport	63	82,056	803	82,859	117,939	1,207.8
Shipping	47	7,890	496	8,386	11,906	143.9
Stevedoring	291	151,833	17	151,850	136,209	1,505.8
Amusement, hotels, personal service, etc.	39	42,046	79	42,125	41,564	423.9
Other industries(*c*)	66	87,416	62	87,478	103,321	1,096.8
Total	**2,014**	**1,244,032**	**41,166**	**1,285,198**	**1,957,957**	**22,985.7**

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (*c*) Includes communication; finance and property; wholesale and retail trade; public authority (n.e.i.); and community and business services.

A graph on plate 24, page 272 shows, for the years 1957 to 1969, the working days lost as a result of industrial disputes in the main industry groups.

The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved and the losses in working days and wages caused by disputes which were current during each of the years 1965 to 1969.

INDUSTRIAL DISPUTES: AUSTRALIA

1957 TO 1969

WORKING DAYS LOST—INDUSTRY GROUPS

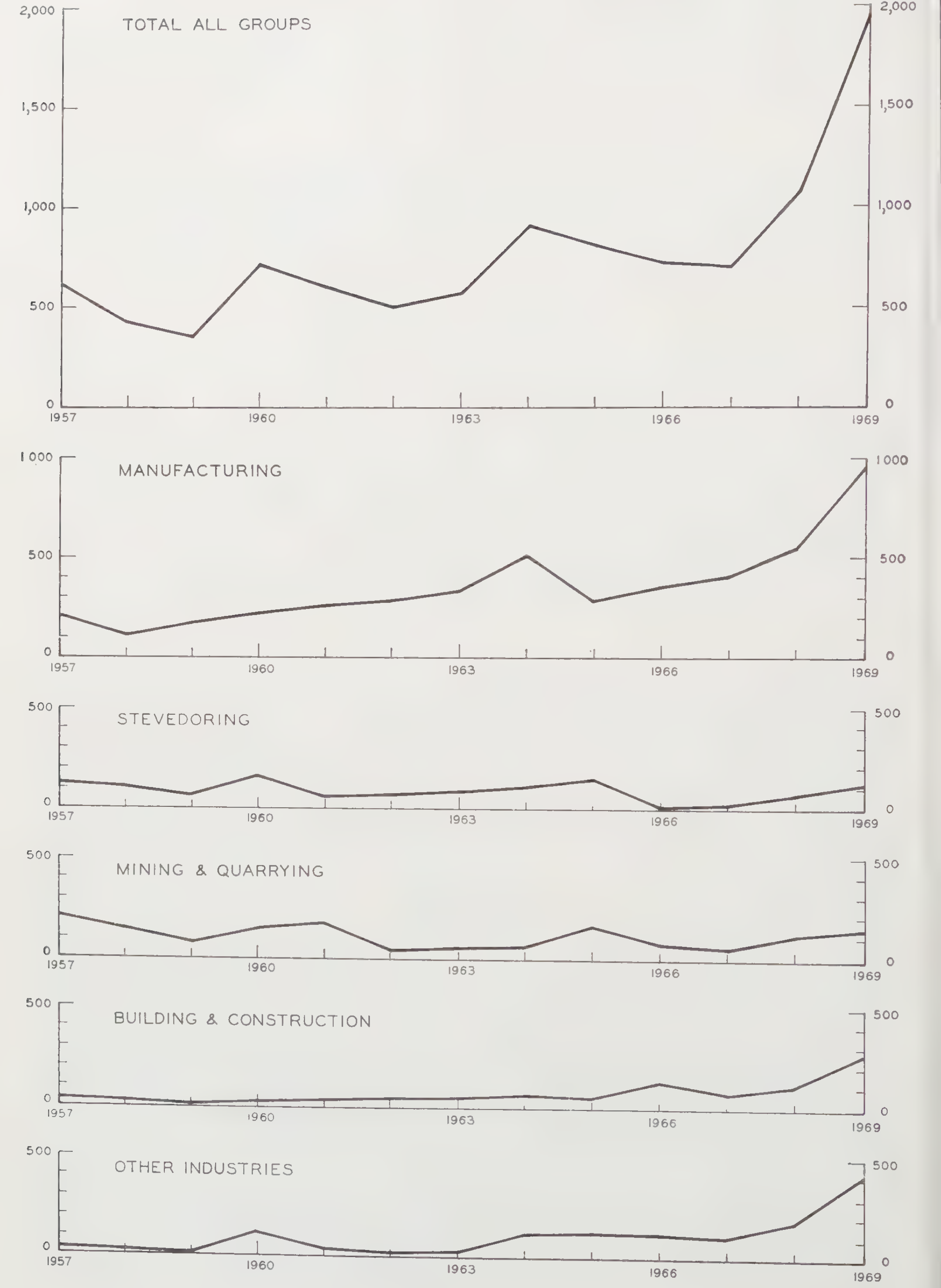

PLATE 24

INDUSTRIAL DISPUTES(*a*): STATES AND TERRITORIES, 1965 TO 1969

			Workers involved				
State or Territory	*Year*	*Number*	*Directly*	*Indirectly (b)*	*Total*	*Working days lost*	*Estimated loss in wages* ($'000)
New South Wales . .	1965	832	244,900	6,156	251,056	367,942	3,479.1
	1966	835	203,701	6,315	210,016	400,111	4,026.0
	1967	836	311,209	9,032	320,241	468,034	4,804.6
	1968	965	345,015	10,464	355,479	583,406	6,653.5
	1969	1,133	507,899	13,827	521,726	743,753	8,666.3
Victoria	1965	208	118,534	3,264	121,798	214,300	2,061.6
	1966	179	99,625	1,865	101,490	219,605	2,097.2
	1967	212	83,225	1,296	84,521	107,312	1,106.6
	1968	327	169,272	3,531	172,803	243,924	2,731.3
	1969	367	336,669	19,760	356,429	717,221	8,619.6
Queensland	1965	186	48,328	5,241	53,569	189,941	2,221.2
	1966	171	67,109	1,622	68,731	80,692	860.8
	1967	159	45,616	635	46,251	88,186	886.7
	1968	193	116,706	3,474	120,180	158,615	1,701.2
	1969	253	214,966	3,529	218,495	238,596	2,523.6
South Australia . . .	1965	48	28,323	143	28,466	26,379	253.3
	1966	42	8,697	63	8,760	20,903	199.7
	1967	55	17,351	96	17,447	18,691	199.0
	1968	83	38,011	1,407	39,418	51,082	514.6
	1969	72	101,102	1,660	102,762	128,957	1,551.4
Western Australia . .	1965	33	12,611	..	12,611	10,020	100.8
	1966	25	2,860	16	2,876	6,239	64.5
	1967	26	5,032	39	5,071	5,994	62.6
	1968	70	18,323	361	18,684	21,762	281.8
	1969	104	57,019	2,083	59,102	101,383	1,284.2
Tasmania	1965	17	5,131	..	5,131	3,894	41.4
	1966	14	2,541	..	2,541	3,119	34.8
	1967	29	6,200	7	6,207	7,290	82.3
	1968	28	7,507	260	7,767	13,037	149.0
	1969	44	8,588	123	8,711	9,948	115.3
Northern Territory . .	1965	17	1,742	6	1,748	2,784	35.0
	1966	4	259	..	259	1,211	17.3
	1967	16	2,679	..	2,679	9,055	113.7
	1968	37	3,710	..	3,710	4,623	50.2
	1969	33	8,012	177	8,189	8,711	124.8
Australian Capital Territory .	1965	5	665	..	665	609	6.2
	1966	3	178	..	178	204	2.2
	1967	7	857	..	857	753	7.5
	1968	10	2,280	..	2,280	3,015	33.7
	1969	8	9,777	7	9,784	9,388	100.6
Australia	1965	1,346	460,234	14,810	475,044	815,869	8,198.5
	1966	1,273	384,970	9,881	394,851	732,084	7,302.5
	1967	1,340	472,169	11,105	483,274	705,315	7,263.1
	1968	1,713	700,824	19,497	720,321	1,079,464	12,115.2
	1969	2,014	1,244,032	41,166	1,285,198	1,957,957	22,985.7

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Persons thrown out of work at the establishments where the stoppage occurred but not themselves parties to the dispute.

Duration of disputes

The duration of each industrial dispute involving a loss of work, i.e. the time between the cessation and resumption of work, has been calculated in working days, exclusive of Saturdays, Sundays and holidays, except where the establishment involved carries on a continuous process (e.g. metal smelting and cement manufacture).

The following table shows, for the year 1969, industrial disputes in coal mining, stevedoring and other industries classified according to duration.

INDUSTRIAL DISPUTES(*a*): DURATION, BY INDUSTRY GROUP, AUSTRALIA, 1969

Duration (working days)	*Number*	*Workers involved(b)*		*Working days lost*		*Estimated loss in wages ($'000)*
		Number	*Proportion of total (per cent)*	*Number*	*Proportion of total (per cent)*	
COAL MINING						
1 day and less	148	29,732	55.4	26,744	35.1	317.0
2 days and more than 1 day	45	19,285	35.9	29,212	38.4	367.5
3 days and more than 2 days	18	2,198	4.1	5,491	7.2	63.4
Over 3 days and less than 5 days	13	1,741	3.3	6,230	8.2	78.3
5 days and less than 10 days	7	224	0.4	1,229	1.6	17.0
10 days and less than 20 days	3	385	0.7	4,568	6.0	53.9
20 days and less than 40 days	1	101	0.2	2,626	3.5	44.2
40 days and over	..	..	..	..	..	..
Total	*235*	*53,666*	*100.0*	*76,100*	*100.0*	*941.3*
STEVEDORING						
1 day and less	261	116,609	76.8	49,056	36.0	540.0
2 days and more than 1 day	19	20,555	13.5	27,836	20.5	310.9
3 days and more than 2 days	8	9,579	6.3	24,607	18.1	269.0
Over 3 days and less than 5 days	1	151	0.1	463	0.3	5.2
5 days and less than 10 days	1	3,756	2.5	20,597	15.1	230.7
10 days and less than 20 days	1	1,200	0.8	13,650	10.0	150.0
20 days and less than 40 days	..	..	..	..	..	..
40 days and over	..	..	..	..	..	..
Total	*291*	*151,850*	*100.0*	*136,209*	*100.0*	*1,505.8*
OTHER INDUSTRIES						
1 day and less	557	469,871	43.5	373,271	21.4	4,040.8
2 days and more than 1 day	306	496,398	45.9	732,411	42.0	8,041.4
3 days and more than 2 days	172	29,965	2.8	73,132	4.2	844.7
Over 3 days and less than 5 days	191	40,629	3.8	154,328	8.8	1,920.6
5 days and less than 10 days	191	28,982	2.7	195,114	11.2	2,517.2
10 days and less than 20 days	56	12,793	1.2	191,505	11.0	2,730.8
20 days and less than 40 days	14	1,030	0.1	25,131	1.4	431.6
40 days and over	1	14	..	756	..	11.4
Total	*1,488*	*1,079,682*	*100.0*	*1,745,648*	*100.0*	*20,538.6*
ALL INDUSTRIES						
1 day and less	966	616,212	47.9	449,071	22.9	4,897.8
2 days and more than 1 day	370	536,238	41.8	789,459	40.4	8,719.9
3 days and more than 2 days	198	41,742	3.2	103,230	5.3	1,177.1
Over 3 days and less than 5 days	205	42,521	3.3	161,021	8.2	2,004.1
5 days and less than 10 days	199	32,962	2.6	216,940	11.1	2,764.9
10 days and less than 20 days	60	14,378	1.1	209,723	10.7	2,934.6
20 days and less than 40 days	15	1,131	0.1	27,757	1.4	475.9
40 days and over	1	14	..	756	..	11.4
Grand Total	**2,014**	**1,285,198**	**100.0**	**1,957,957**	**100.0**	**22,985.7**

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Includes workers indirectly involved. *See* footnote (*b*) to table on page 273.

Causes of disputes

Stoppages are analysed in three separate groups, 'Coal mining', 'Stevedoring', and 'Other industries'. Causes have been grouped under four main headings: (1) Wages, hours and leave; (2) Physical working conditions and managerial policy; (3) Trade unionism; (4) Other causes. The first group is restricted to disputes involving general principles relating to wages, hours and leave; minor questions regarding the claims to pay or leave by individual employees are included under managerial policy. The second group comprises disputes regarding physical working conditions and general questions of managerial policy, including disciplinary action, the promotion of employees, the employment of particular individuals, personal disagreements between employees and supervisory staff, and disputes arising from the computation of wages, leave, etc., in individual cases. The third group includes stoppages over employment of non-unionists, inter-union and intra-union disputes, disputes over recognition of union activities, and sympathy stoppages in support of employees in another industry. The last group comprises disputes by way of protest against situations not arising from the usual relationship of employer and employee, e.g. political matters, and cases (occurring mainly in the coal mining industry) where the cause of the stoppage is not officially made known to the management.

The following table shows particulars of industrial disputes classified according to cause, in three industry groups for 1969.

INDUSTRIAL DISPUTES(*a*): CAUSES, INDUSTRY GROUPS, AUSTRALIA, 1969

Cause of dispute	*Coal mining*	*Stevedoring*	*Other industries*	*All industries*
Number of disputes—				
Wages, hours and leave	35	44	605	684
Physical working conditions and managerial policy	123	207	695	1,025
Trade unionism	49	16	117	182
Other	28	24	71	123
Total disputes	*235*	*291*	*1,488*	*2,014*
Workers involved(*b*)—				
Wages, hours and leave	22,844	39,506	290,874	353,224
Physical working conditions and managerial policy	17,673	80,307	130,084	228,064
Trade unionism	5,932	3,609	55,794	65,335
Other	7,217	28,428	602,930	638,575
Total workers involved	*53,666*	*151,850*	*1,079,682*	*1,285,198*
Working days lost—				
Wages, hours and leave	32,424	36,154	598,301	666,879
Physical working conditions and managerial policy	29,763	77,460	317,377	424,600
Trade unionism	5,944	1,876	78,399	86,219
Other	7,969	20,719	751,571	780,259
Total working days lost	*76,100*	*136,209*	*1,745,648*	*1,957,957*

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Includes workers indirectly involved. *See* footnote (*b*) to table on page 273.

Methods of settlement of disputes

The following table shows particulars of industrial disputes for 1969, classified according to method of settlement, in three industry groups.

INDUSTRIAL DISPUTES(*a*): METHODS OF SETTLEMENT, INDUSTRY GROUPS AUSTRALIA, 1969

Method of settlement	*Coal mining*	*Stevedoring*	*Other industries*	*All industries*
NUMBER OF DISPUTES				
By private negotiation	60	12	443	515
By mediation not based on legislation	1	..	19	20
State legislation—				
Under State Conciliation, etc. legislation	1	5	226	232
By reference to State Government officials	5	..	..	5
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act	1	1	243	245
Coal Industry Acts	19	..	..	19
Stevedoring Industry Acts	..	8	..	8
Other Acts	..	..	1	1
By reference to Commonwealth Government officials	..	20	..	20
By filling places of workers on strike or locked out	..	..	..	..
By closing down establishment permanently	..	..	..	..
By resumption without negotiation	148	245	556	949
By other methods	..	..	..	..
Total	**235**	**291**	**1,488**	**2,014**
WORKERS INVOLVED(*b*)				
By private negotiation	7,259	1,243	62,691	71,193
By mediation not based on legislation	36	..	2,673	2,709
State legislation—				
Under State Conciliation, etc. legislation	42	1,532	44,214	45,788
By reference to State Government officials	814	..	..	814
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act	122	41	35,409	35,572
Coal Industry Acts	2,001	..	..	2,001
Stevedoring Industry Act	..	537	..	537
Other Acts	..	..	36	36
By reference to Commonwealth Government officials	..	3,430	..	3,430
By filling places of workers on strike or locked out	..	..	..	..
By closing down establishment permanently	..	..	..	..
By resumption without negotiation	43,392	145,067	934,659	1,123,118
By other methods	..	..	..	..
Total	**53,666**	**151,850**	**1,079,682**	**1,285,198**

For footnotes *see* next page.

INDUSTRIAL DISPUTES(*a*): METHODS OF SETTLEMENT, INDUSTRY GROUPS
AUSTRALIA, 1969—*continued*

Method of settlement	*Coal mining*	*Steve-doring*	*Other industries*	*All industries*
WORKING DAYS LOST				
By private negotiation	17,873	544	211,202	229,619
By mediation not based on legislation	187	..	21,530	21,717
State legislation—				
Under State Conciliation, etc. legislation	295	14,221	155,822	170,338
By reference to State Government officials	884	..	..	884
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act	365	164	192,089	192,618
Coal Industry Acts	4,552	..	..	4,552
Stevedoring Industry Acts	..	340	..	340
Other Acts	..	..	108	108
By reference to Commonwealth Government officials	..	3,196	..	3,196
By filling places of workers on strike or locked out	..	..	..	..
By closing down establishment permanently	..	..	..	..
By resumption without negotiation	51,944	117,744	1,164,897	1,334,585
By other methods	..	..	..	..
Total	**76,100**	**136,209**	**1,745,648**	**1,957,957**

(*a*) Refers only to disputes involving a stoppage of work of ten man-days or more. (*b*) Includes workers indirectly involved. *See* footnote (*b*) to table on page 273.

WORKERS' COMPENSATION LEGISLATION

A conspectus of the principal provisions of Workers' Compensation Acts and Ordinances in force in Australia at 31 December 1967 is included in *Labour Report* No. 53, pages 191–203.

LABOUR ORGANISATIONS

Labour organisations in Australia

The figures shown in this section are prepared from a special collection of membership of labour organisations at 31 December each year. The affairs of single unions are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information. More detailed statistics appear in the annual *Labour Report*.

Trade unions

The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organisation, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organisations: (*a*) the local independent, (*b*) the State, (*c*) the interstate, and (*d*) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organisation of interstate or federated unions vary greatly in character. In some unions the State organisations are bound together under a system of unification with centralised control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. Statistics relating to interstate or federated trade unions are shown in a table on page 279.

Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organisations. The following table shows the position at the end of each of the years 1967 to 1969.

TRADE UNIONS: NUMBER AND MEMBERSHIP, STATES AND TERRITORIES DECEMBER 1967 TO 1969

State or Territory	Number of separate unions			Number of members ('000)			Percentage increase in membership(*a*)		
	1967	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*
New South Wales	213	210	210	832.8	861.5	884.8	1.9	3.4	2.7
Victoria	152	153	152	545.5	550.7	559.8	1.1	1.0	1.7
Queensland	138	135	135	344.0	334.1	336.4	—2.2	—2.9	0.7
South Australia	133	133	135	182.2	185.6	194.2	2.1	1.9	4.6
Western Australia	155	157	153	152.3	160.9	162.2	3.9	5.6	0.8
Tasmania	107	111	112	68.1	68.2	69.9	4.0	0.1	2.4
Northern Territory(*b*)	40	39	43	4.5	5.6	5.9	(*b*)	(*b*)	(*b*)
Australian Capital Territory(*b*)	65	70	70	22.0	24.1	26.0	(*b*)	(*b*)	(*b*)
Australia	**(*c*) 324**	**(*c*) 319**	**(*c*) 309**	**2,151.3**	**2,190.7**	**2,239.1**	**1.3**	**1.8**	**2.2**

(*a*) On preceding year. (*b*) Some unions in the Territories are affiliated with State organisations and their membership is reported under the heading of that State. More accurate reporting of membership by location over the years is reflected in the annual figures for the Territories and this affects their comparability over time. (*c*) Without interstate duplication *see* below.

Minus sign (—) denotes decrease.

In the preceding table, under the heading 'Number of separate unions', a union reporting members in a State or Territory is counted as one union within that State or Territory. The figures do not add to the Australian total (shown in the last line) because a union represented in more than one State or Territory is included in the figure for each State or Territory in which it is represented, but is counted only once in the Australian total.

A table showing the number and membership of trade unions in Australia for the years 1912 to 1967 is included in Appendix XIV to *Labour Report* No. 53.

The following table shows the number of unions and members thereof in Australia at the end of each of the years 1967 to 1969 classified according to industry group. The table does not supply a precise classification of trade unions and their members by industry, because where the members of a union are employed in a number of industries they have been classified to the predominant industry for the union concerned. Comparability between years of membership figures for an industry group may be affected by amalgamation of trade unions classified to different industry groups.

TRADE UNIONS: INDUSTRY GROUPS, AUSTRALIA, DECEMBER 1967 TO 1969

Industry group	*1967*		*1968*		*1969*	
	No. of unions (a)	*No. of members*	*No. of unions (a)*	*No. of members*	*No. of unions (a)*	*No. of members*
		'000		'000		'000
Agriculture, grazing, etc.	3	60.4	3	58.5	3	58.3
Mining and quarrying	12	34.5	12	34.5	12	34.2
Manufacturing—						
Engineering, metals, vehicles, etc.	9	343.1	9	352.4	9	363.3
Textiles, clothing and footwear	6	109.6	5	107.3	5	99.9
Food, drink and tobacco	32	133.4	31	125.9	28	134.3
Sawmilling, furniture, etc.	6	34.9	6	34.7	6	32.8
Paper, printing, etc.	5	57.5	5	59.2	5	59.9
Other manufacturing	25	85.3	22	87.6	22	90.4
All manufacturing groups	*83*	*763.7*	*78*	*767.1*	*75*	*780.5*
Building and construction	24	142.6	23	145.5	20	139.1
Railway and tramway services	24	126.0	22	124.3	22	123.7
Road and air transport	11	75.0	11	77.5	12	80.4
Shipping and stevedoring	13	32.9	13	32.0	12	30.6
Banking, insurance and clerical	15	146.8	15	147.0	14	149.0
Wholesale and retail trade	11	84.7	11	89.7	11	88.3
Public administration(*b*)	70	423.0	71	436.6	69	457.2
Amusement, hotels, personal service, etc.	21	56.5	21	58.6	21	62.4
Other industries(*c*)	37	205.3	39	219.3	38	235.3
Total	**324**	**2,151.3**	**319**	**2,190.7**	**309**	**2,239.1**

(*a*) Without interstate duplication. *See* text above. (*b*) Includes communication, municipal, etc. (*c*) Includes community and business services.

Number of trade union members and proportion of wage and salary earners. The following table shows the approximate percentages of wage and salary earners in employment who are members of trade unions. The estimates of total wage and salary earners have been obtained by adding the number of employees in agriculture and in private domestic service recorded at the June 1966 population census to the estimates of employees in all other industries at the end of each year. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table are approximations. In comparing the percentages shown in this table with those shown in the previous issues of the Year Book, allowance should be made for the fact that the present estimates are based on a new series of employment estimates as from June 1966 *see* chapter 21, Employment and Unemployment. The change is of most significance for female employees as the new employment estimates include a considerable number of part-time employees who had previously been excluded.

TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA, 1966 TO 1969

End of December—	*Number of members ('000)*			*Proportion of total wage and salary earners(a) (Per cent)*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
1966 . .	1,657.5	466.0	2,123.5	60	37	53
1967 . .	1,663.7	487.6	2,151.3	59	37	52
1968 . .	1,691.1	499.5	2,190.7	59	36	51
1969 . .	1,717.5	521.6	2,239.1	58	36	50

(*a*) *See* text above.

Interstate or federated trade unions. The following table gives particulars of the number and membership of interstate or federated trade unions in 1969.

INTERSTATE OR FEDERATED TRADE UNIONS(*a*): AUSTRALIA, DECEMBER 1969

	Unions operating in—					
	2 States	*3 States*	*4 States*	*5 States*	*6 States*	*Total*
Number of unions . . .	10	7	18	23	84	142
,, ,, members ('000) .	22.5	31.0	130.0	294.8	1,571.9	2,050.2

(*a*) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory or the Australian Capital Territory or both.

Organisations registered under the (Commonwealth) Conciliation and Arbitration Act

Under Part VIII of the *Conciliation and Arbitration Act* 1904–1969 any association of employers in an industry who have, or any employer who has, employed, on an average taken per month, not less than 100 employees during the six months preceding application for registration, and any association of not less than 100 employees in any industry, may be registered. However, the Public Service Arbitration Act provides that an association of less than 100 employees may be registered as an organisation under the Conciliation and Arbitration Act if its members comprise at least three-fifths of all persons engaged in that industry in the Public Service. Such organisations are included in the following figures. Registered unions include both interstate associations and associations operating within one State only. Registration under Commonwealth legislation began in 1906. At the end of 1969 the number of employers' organisations registered under the provisions of the Act was 75. The number of unions registered at the end of 1969 was 149, with membership of 1,901,000, representing 84 per cent of the total membership of all trade unions in Australia. Lists of organisations of employees and of employers registered under this Act are contained in the *Industrial Information Bulletin*, Vol. 25, No. 1, January 1970 published by the Department of Labour and National Service.

Central labour organisations

Trades and Labour Councils. Delegate organisations, usually known as Trades Hall Councils or Labour Councils and consisting of representatives of a number of trade unions, have been established in the capital cities and in a number of other centres in each State. In the centres where these councils exist most unions or local branches operating in the district are affiliated. The district councils obtain their finance by means of a *per capita* tax on members of affiliated unions. In States other than Western Australia the district councils are generally independent bodies, although provision usually exists in the rules of the central council in the capital city for the organisation of district councils, or for their representation on the central council. Since 1962 in Western Australia separate Trades and Labour Councils, with provincial councils, have been established outside the framework of the Australian Labor Party. At the end of 1963 only the central council (the Trades and Labour Council of Western Australia) was operating, but a number of provincial councils were established from 1964.

The following table shows, for each State and Territory, the number of trades and labour councils and the number of affiliated unions or branches of unions at the end of 1969. The figures for the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

CENTRAL LABOUR ORGANISATIONS: NUMBER, AND UNIONS AND BRANCH UNIONS AFFILIATED, STATES AND TERRITORIES, DECEMBER 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A. (a)*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
Number of councils .	10	9	13	5	3	2	..	1	43
Number of unions and branch unions affiliated . .	334	279	191	149	136	91	..	19	1,199

(*a*) *See* explanation in text above.

As well as trades and labour councils there are councils organised on trade lines and composed of delegates from separate unions whose members' interests are closely connected by reason of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the metal trades, or with the building trades, are examples of such organisations.

Australian Council of Trade Unions. A central labour organisation, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May 1927. The A.C.T.U. consists of affiliated unions and approved State Trades and Labour Councils and Provincial Councils. The State Trades and Labour Council in each State is the State Branch of the A.C.T.U. and it has the right to appoint one representative to act on the executive of the Council. In addition to the four A.C.T.U. officers and representatives of the State Branches of the A.C.T.U., seven delegates are elected by and from Congress, one from each, of the following industry groups: Building, Food and distributing services, Manufacturing, Metal Services, Transport, and the A.W.U. group. The President and Secretary are full-time officials and, with the two Vice-Presidents, are elected by and from the Australian Congress of Trade Unions.

The ordinary meetings of Congress are held in alternate years. The 1969 Biennial Congress was held in September 1969, and was attended by 755 delegates from affiliated organisations, States branches of the A.C.T.U., and provincial councils. Special meetings of Congress are held whenever deemed advisable by decision of the executive, as approved by the majority of its branches, or by resolution supported by unions representing one-third of the total membership of the A.C.T.U.

The objectives of the A.C.T.U. are the socialisation of industry, i.e. production, distribution and exchange, and the utilisation of the resources of Australia for the benefit of the people—ensuring full employment, with rising standards of living, real security, and full cultural opportunities for all. The methods to be adopted are: the closer organisation of the workers by the transformation of the Australian trade union movement from the craft to an industrial basis, by grouping of unions in their respective industries and by the establishment of one union in each industry; the consolidation of the Australian labour movement with the object of unified control, administration, and action; the centralised control of industrial disputes, educational propaganda among unions; and political action to secure satisfactory working-class legislation.

The A.C.T.U. was the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the trade union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the annual International Labour Conference.

International Labour Organisation

The International Labour Organisation (I.L.O.) was established on 11 April 1919 as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII of the Treaty of Versailles and formed part of other treaties of peace. During the years between its establishment and the outbreak of the 1939–45 War the I.L.O., with headquarters at Geneva, played a leading role in promoting the improvement of labour conditions throughout the world.

In 1940, in order to ensure that the I.L.O. should be able to continue to function freely, a working centre was established at Montreal, Canada. In 1946 the Organisation became the first of the specialised agencies of the United Nations. Under the terms of agreement the United Nations recognises the I.L.O. as a specialised agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organisations, social security and other aspects of social policy. The Organisation has three basic parts. These are the International Labour Conference, its highest authority, which as a rule meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the secretariat of the Organisation. The Conference is composed of delegations from the Member States of the Organisation. At the end of 1969 there were 118 Member States, each of which is entitled to be represented by four delegates—two government, one representing employers and one representing workers together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty-four governments and twelve employers' and twelve workers' representatives. Of the twenty-four government representatives, ten are from the ten countries of major industrial importance and fourteen are elected by the remaining governments. These latter fourteen government representatives and the twelve employers' and twelve workers' titular delegates and the deputy members of the three groups are elected by their groups at the Conference every three years. Particulars are given in *Labour Report* No. 53 of the proceedings of International Labour Conferences up to the 51st Session, held in Geneva in June 1967. For details of I.L.O. conventions ratified by Australia, *see Labour Report* No. 53, pages 213–14.

CHAPTER 11

OVERSEAS TRANSACTIONS

This chapter includes statistics of overseas trade, balance of payments, and overseas investment by private investors, but because of limitations of space the statistics are, in the main, restricted to summarised form. For detailed information *see* the *Annual Bulletin of Overseas Investment, Australia;* and the other annual bulletins *Overseas Trade* (preliminary and final), *Australian Exports*, *Australian Imports*, *Imports Cleared for Home Consumption* issued in six parts as from 1968–69 and incorporating Tariff descriptions; and the half-yearly bulletin *Balance of Payments*. Preliminary information is available in summary form in the statements *Balance of Payments—Quarterly Summary*, *Overseas Investment—Preliminary Bulletin* (annual), *Australian Overseas Trade—Exports and Imports* (monthly), *Overseas Trade—Exports by Commodity Divisions* (monthly), and *Overseas Trade—Imports by Commodity Divisions* (monthly). Current information is included in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and in more detail in the *Monthly Bulletin of Overseas Trade Statistics*. There are also the following additional mimeographed statements: *Exports of Principal Products of Australian Origin* (monthly), *Imports of Assembled New Motor Cars* (monthly), *Overseas Trade with Major Groups of Countries* (quarterly), *Highlights of Overseas Trade* (quarterly), and *Trade of Australia with Eastern Countries* (annually). Additional unpublished details of exports and imports can be supplied on request.

A subscription service is available from this Bureau to provide for the detailed requirements of individual users of overseas trade statistics. These special periodical returns are obtainable monthly or quarterly and show trade according to items of the Australian Export and Import Commodity Classifications or statistical key code dissections of Australian Customs Tariff items. A nominal charge is made which varies depending on the amount of detail required.

OVERSEAS TRADE

Constitutional provisions and legislation

Constitutional provisions

By the Commonwealth of Australia Constitution Act, section 51 (1), the power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament. Under section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution (*see* pages 17–18).

Commonwealth legislation

Commonwealth legislation affecting overseas trade includes: the Customs Act, the Customs Tariff and the Customs Tariff (Dumping and Subsidies) Act. The Customs Act is the administrative Act under which the Department of Customs and Excise operates. The Customs Tariff provides the statutory authority for imposing the actual rates of duty operative from time to time, while the Customs Tariff (Dumping and Subsidies) Act provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first Commonwealth Customs Tariff was introduced by Resolution on 8 October 1901, from which date uniform duties came into effect throughout Australia. The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to certain imports from countries of the Commonwealth, and certain developing countries. Duties are imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy.

The present tariff provides for general and preferential rates of duty, and its structure is based on the 'Brussels Nomenclature' which has its origins in the Convention on Nomenclature for the Classification of Goods in Customs Tariffs, signed in Brussels on 15 December 1950. Australian has operated a 'Brussels-type' tariff since 1 July 1965.

Preferential rates. Preferential rates apply to goods the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand, Papua, and New Guinea, and certain goods the produce or manufacture of specified countries, provided that such goods comply with the laws in force at the time affecting the grant of preference.

The following are the rules of origin for preference purposes.

'151.—(1.) For the purposes of this Act and the *Customs Tariff* 1966–1968 (other than section twenty of the last-mentioned Act), goods shall be treated as the produce of a country if they are unmanufactured raw products of the country.

(2.) For the purposes of this Act and the *Customs Tariff* 1966–1968 (other than section twenty or a direction under section thirty-three "c" of the last-mentioned Act), goods shall be treated as the manufacture of a country—

(*a*) if the goods were wholly manufactured in the country from materials of one or more of the following classes:

(i) unmanufactured raw products;

(ii) materials wholly manufactured in the country or in Australia, or in the country and in Australia; and

(iii) imported materials that the Minister has, in relation to the country, determined, by notice published in the *Gazette*, to be manufactured raw materials; or

(*b*) if the goods were partly manufactured in the country, the process last performed in the manufacture of the goods was performed in the country and—

(i) not less than three-quarters, or, in a case where the country is New Zealand, one-half, of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia;

(ii) in a case where the goods are goods of a class or kind not commercially manufactured in Australia, not less than one-quarter of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia; or

(iii) in a case where the country is New Zealand, not less than three-quarters of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of New Zealand and the United Kingdom or of New Zealand, Australia and the United Kingdom.

(3.) For the purposes of a direction under section thirty-three "c" of the *Customs Tariff* 1966–1968 goods shall be treated as the manufacture of a country if—

(*a*) the process last performed in the manufacture of the goods was performed in the country; and

(*b*) not less than one-half of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and one or more of the following countries, that is to say, Australia and countries that, at the time the goods are entered for home consumption, are less developed countries, other than a country that, by virtue of a direction under sub-section (2) of section eleven of the *Customs Tariff* 1966–1968 is not to be treated as a less developed country in relation to the class of goods in which the goods are included.

'151A.—(1.) For the purposes of this Act and the *Customs Tariff* 1966–1968 (other than section twenty or a direction under section thirty-three "c" of the last-mentioned Act), goods shall not be treated as the produce or manufacture of the United Kingdom, Canada, New Zealand, Ireland, Malawi, Southern Rhodesia, Zambia, the Territory of Papua or the Territory of New Guinea unless they have been shipped from that country to Australia and, except where the Collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(2.) The last preceding sub-section does not apply—

(*a*) to goods the produce or manufacture of a country other than New Zealand that are imported into Australia from New Zealand; or

(*b*) to goods the produce or manufacture of a country other than the Territory of Papua or the Territory of New Guinea that are imported into Australia from the Territory of Papua or the Territory of New Guinea.

(3.) For the purposes of a direction under section thirty-three "c" of the *Customs Tariff* 1966–1968, goods shall not be treated as the produce or manufacture of a country unless thay have been shipped from that country to Australia and, except where the collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(4.) For the purposes of this section—

(*a*) goods may be treated as having been shipped from the Territory of Papua or the Territory of New Guinea if they have been shipped from either of those territories; and

(*b*) goods may be treated as having been shipped from Malawi, Southern Rhodesia or Zambia if they have been shipped from any of those countries or from Lourenco Marques or Beira in Mozambique'.

Declared preference countries. 10.—(1.) The Minister may, by order published in the *Gazette*, declare that a country specified in the order is a declared preference country for the purposes of this Act.

(2.) An order under the last preceding sub-section has effect, or shall be deemed to have had effect, from and including such date (which may be a date earlier than the date of publication of the order in the *Gazette*) as is specified in the order.

(3.) The Minister may, by order published in the *Gazette*, revoke an order under sub-section (1.) of this section.

(4.) An order under the last preceding sub-section has effect from and including such date (which shall not be a date earlier than the date of publication of the order in the *Gazette*) as is specified in the order.

(5.) Goods shall not be treated as the produce or manufacture of a declared preference country for the purposes of this Act unless, at the time the goods are entered for home consumption, the order under sub-section (1.) of this section in which the declared preference country is specified has effect or is deemed to have had effect.

Declared preference countries comprise:

Bahama Islands
Barbados
Bermuda
British Honduras
British Solomon Islands Protectorate
Brunei
Ceylon
Falkland Islands and Dependencies
Federation of Malaysia
Fiji
Gambia
Ghana
Gibraltar
Gilbert and Ellice Islands Colony
Guyana
Hong Kong
Jamaica and Dependencies
Kenya
Leeward Islands
Maldive Islands
Malta
Mauritius and Dependencies
Nigeria
Republic of Cyprus
Republic of Singapore
St Helena and Ascension
Seychelles and Dependencies
Sierra Leone
Tanzania
Tonga
Trinidad and Tobago
Uganda
Virgin Islands of the United Kingdom
Windward Islands

General rates. General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

By-law provisions. Customs By-laws and Ministerial Determinations are instruments made by the Minister for Customs and Excise under the authority of sections 271 to 273D of the Customs Act by which goods may be admitted free of duty or at rates of duty lower than those normally applicable. By-laws and determinations may only be made under a by-law classification, which is a tariff classification containing the words 'as prescribed by by-law'. Such a classification sets out the by-law duty rates which will apply to goods only when such goods are included in a by-law or determination made under that classification. A prerequisite for by-law admission is that suitably equivalent goods be not reasonably available from Australian production. A by-law covers goods by general description with no limit on quantity and may be used by any importer of the goods. A determination generally covers a specific quantity of particular goods and may be used only by the importer mentioned in the determination.

Primage duties. In addition to the ordinary duties of customs imposed by the Customs Tariff, *ad valorem* primage duties at rates of five per cent or ten per cent are charged on some goods according to the types of goods and origin thereof. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos (Keeling) Islands, Christmas Island, Papua, and New Guinea are exempt from primage duty.

Anti-dumping duties. The *Customs Tariff (Dumping and Subsidies) Act* 1961–1965 provides protection for Australian industry against various forms of unfair trading. Under this Act dumping duty may be imposed on goods that are sold to Australian importers at a price which is less than the normal value of the goods, where this causes or threatens material injury to an Australian industry. 'Normal value' under the Act means:

(*a*) fair market value in the country of export;
(*b*) price in the country of export to a third country;
(*c*) fair market value in a third country; or
(*d*) cost of production, plus f.o.b. charges, plus selling costs and profit.

The amount of dumping duty is the difference between the normal value and f.o.b. export price.

Countervailing duty may be levied on goods in respect of which any subsidy, bounty, reduction or remission of freight, or other financial assistance has been, or is being, paid or granted directly or indirectly upon the production, manufacture, carriage or export of those goods. The amount of the countervailing duty in respect of any goods is a sum equal to the amount of the subsidy, bounty, reduction or remission of freight or other financial assistance.

Import controls—Customs (Import Licensing) Regulations

A comprehensive system of import licensing was introduced in Australia at the beginning of the second World War under the authority of the Customs (Import Licensing) Regulations. Following the gradual relaxation of the restrictions from the end of the War, import licensing was reimposed on 8 March 1952 and continued in force until 18 October 1962. From that date restrictions were removed from all commodities with the exception of some goods retained under control for reasons associated with the protection of Australian industry. Further information on import controls is given in Year Book No. 51, page 492.

Export controls and incentives

Export restrictions. Section 112 of the Customs Act provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia and that this power may be exercised by: (*a*) prohibiting the exportation of goods absolutely; (*b*) prohibiting the exportation of goods to a specified place; and (*c*) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

Exchange control—Banking Act 1959–1967. As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III of the Banking (Foreign Exchange) Regulations, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV of the Banking Act to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations, and may be subject to such further terms and conditions as are determined, or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds $1,000, or where jewellery and other articles of high intrinsic worth either exceed $10,000 in value and those goods have not been the personal property of the passenger for at least twelve months.

Export incentives. The Commonwealth Government provides taxation concessions as financial incentives to export. A special income tax allowance for export market development expenditure is designed to encourage firms to incur promotion expenditure in advance of export sales and to assist exporters and potential exporters to expand sales in the existing markets and to enter new overseas markets. The allowance is in the form of a special deduction equal and additional to the ordinary deduction allowable in respect of specified expenses allowable in determining taxable income. Rebates of pay-roll tax are also granted to employers whose export sales of goods or property rights have increased above their average annual level in a base period. The rebate is available in the first place to employers who are producers for export, but a producer for export may issue an export certificate to an employer who has supplied components embodied in the final product.

Trade descriptions

The Commerce (Trade Descriptions) Act 1905–1966 gives power to require the application of a proper trade description to certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

Government authorities

Tariff Board

The *Tariff Board Act* 1921–1966 provides for the appointment of a Tariff Board consisting of eight members. Of these, two must, and three may, be members of the Commonwealth Public Service at the time of their appointment (or first appointments in the case of re-appointments). Members of the Board are appointed for terms of not less than one year and not more than five years. The purpose of the Tariff Board is to advise the Government on matters relating to the protection and encouragement of Australian industry.

The Minister of State for Trade and Industry is required to refer to the Board for inquiry and report the following matters; the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods by charging unnecessarily high prices for his goods or acting in restraint of trade. In addition, the Minister may refer the following matters to the Tariff Board for inquiry and report: the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and other matters affecting the encouragement of primary and secondary industries in relation to the Tariff. The Minister of State for Customs and Excise may refer to the Tariff Board for inquiry and report the following matters: the classification of goods in the Customs Tariff or Excise Tariff and matters in connection with the interpretation of these Tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff (Dumping and Subsidies) Act* 1961–1965.

Where a matter of the necessity for new or increased duties on any goods has been referred to the Board for inquiry and report, the Board may, in its report, recommend the restriction of the importation of those goods for such period as is specified in the report.

Inquiries conducted by the Board relating to a revision of the Tariff, a proposal for a bounty, a question under the Customs Tariff (Dumping and Subsidies) Act, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods, are held in public, and evidence in such inquiries is taken in public on oath, unless the Board accepts evidence as confidential or in the form of a written statement by a witness on oath. The Board is required to make available to the public the contents of any such written statement except any matter which it accepts as confidential.

Special Advisory Authority

The Minister for Trade and Industry may also request a Special Advisory Authority to inquire into cases where urgent action appears necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Tariff Board. The Special Advisory Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by a Special Advisory Authority may be imposed, but may only operate for a period of up to three months after the date of receipt of the final report by the Tariff Board on the goods concerned.

Trade agreements

Multilateral—General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (G.A.T.T.), which came into force on 1 January 1948, is a multilateral trade treaty designed to facilitate trading relations between participating countries by reducing tariff and other barriers to the free interchange of goods. The Agreement provides a framework within which negotiations can be held to reduce barriers to trade, and a structure for embodying the results of such negotiations in a legal instrument. Features of the Agreement are the schedules of tariff concessions participating countries have negotiated with each other, the application of most-favoured-nation treatment among the participants, the avoidance of trade discrimination, and a code of agreed commercial policy rules for international trading. Each participating country retains the right (*a*) to impose new or increased duties for protective purposes, except in respect of particular products where rates of duty have been bound against increase in negotiations under the Agreement; (*b*) by negotiation to modify or withdraw concessions formerly agreed; (*c*) to impose import restrictions to protect the balance of payments; (*d*) to take emergency action where any industry is endangered by reason of any obligation incurred under the Agreement.

There have been six main tariff negotiations under the provisions of the Agreement, and a number of smaller scale negotiations preceding the accession of individual countries. As a result the tariff rates for a great many items entering into world commerce have been reduced and or bound against increase. Australia has obtained tariff concessions from individual countries on a number of her principal or potential exports to them, as a result both of direct negotiation by Australia and of negotiation by other countries. In the latter case the benefits occurred through the operation under the Agreement of the most-favoured-nation principle. The latest series of trade negotiations, the Kennedy Round, was based on a plan for linear tariff cuts by industrial countries on all industrial products, with a minimum of exceptions, and on the reduction of non-tariff barriers to trade and the creation of acceptable conditions of access to world markets for agricultural products. It concluded in June 1967 after three years of negotiations. Concessions were negotiated on trade valued at over $36,000 million. The average reductions in tariffs on industrial goods was roughly one-third, while in agriculture the most important item was the agreement reached on the basis for a new world grains arrangement. Overall results were substantial, but were unevenly spread in that efforts to reduce trade barriers were very much more successful for manufacturers than for primary products. In the post-Kennedy Round period, therefore, Australia is placing particular emphasis on the work of the Committee on Agriculture, created in November 1967, to examine the problems in the agricultural sector.

Up to the end of 1969 the contracting parties had held twenty-five sessions, nearly all in Geneva, to deal with matters arising from the administration of the Agreement. As a general rule the contracting parties meet once a year, although in a few instances they have met twice. In 1960 a Council of Representatives was established to undertake work, both of an urgent and of a routine character, between the regular sessions of the contracting parties. Some of the provisions of the Agreement were revised in 1954 and 1955. The revised Agreement contains tighter provisions on non-tariff barriers to trade, and allows more freedom for countries to revise individual tariff items which had been bound against an increase in tariff negotiations under the Agreement.

Since G.A.T.T. has not been accepted definitively by any country except Haiti, the Agreement is at present being applied provisionally pursuant to a Protocol of Provisional Application. At the end of January 1970 seventy-six countries, whose foreign trade represents over eighty per cent of the total volume of world trade, were full contracting parties to the Agreement, two had acceded provisionally, and thirteen applied the Agreement on a *de facto* basis.

Increasing attention has been focused in G.A.T.T. on specific trade and development problems of developing countries, and in February 1965 a new Part IV of G A.T.T., aimed at helping developing countries solve these problems, was introduced on a *de facto* basis coming legally into force in June 1966. The new Part IV embodies commitments by individual and joint action by contracting parties, aimed at ensuring that the less developing countries can increasingly find the means to raise standards of living and promote rapid economic development through participating in international trade and achieving sustained growth of their export earnings.

As a means of helping to offset the competitive disadvantages faced by the new industries of the developing countries, and of putting these countries in a better position to compete with major industrial countries in the Australian market, Australia formulated in 1965 a system of tariff preferences on a range of manufactured and semi-manufactured products, all of which had been nominated by developing countries as being of export interest to them. It was recognised that Australia's initiative might well give a lead to other countries which might wish to use preferences to assist developing countries, and so lead to a compounding of the benefits to the developing countries.

Before the Australian system could be introduced, it was necessary to obtain a waiver from the G.A.T.T. 'no-new-preference' provisions. Such a waiver was granted at the end of March 1966 and the first preferences for developing countries became effective in April 1966. The Australian system has been extended in scope from time to time and is successfully stimulating imports of the products concerned from developing countries. Features of the system are that it is non-reciprocal (in that Australia seeks nothing in return), that it contains safeguards for Australian industries and for the interests of third countries, and that it is subject to international supervision through the G A.T.T.

Bilateral agreements

United Kingdom. The original United Kingdom and Australia Trade Agreement (Ottawa Agreement) was signed on 20 August 1932. The provisions and history of the agreement were published in Year Book No. 43, page 329. A new Trade Agreement designed to replace the original agreement and correct the imbalance in benefits which had emerged in the twenty-five years of its operation came into effect on 9 November 1956. Briefly, this agreement preserves security for Australian exports in the United Kingdom market, but lowers the obligatory margins of preference which Australia extends to the United Kingdom. The agreement provides for re-negotiation after the initial five-year period, but by arrangement between the two Governments this re-negotiation has been postponed. In the meantime the agreement continues subject to six months notice of termination by either country. Further details of the 1956 Agreement may be obtained from Year Book No. 51, page 495.

Canada. The existing agreement between Australia and Canada came into force on 30 June 1960, replacing an agreement signed on 3 August 1931. The agreement provides for Australian goods to receive British Preferential Tariff rates, or better, upon entry into Canada, and for Canada to maintain margins of preference in favour of Australia on a range of commodities. The agreement specifies that Canadian goods, with some exceptions, shall receive the benefit of the British Preferential Tariff upon importation into Australia and that Australia shall maintain margins of preference in favour of Canada on a range of commodities. The agreement continues subject to six months notice.

New Zealand. The New Zealand-Australia Free Trade Agreement came into force on 1 January 1966. The agreement provides for free trade in certain scheduled goods. Provision is made for the addition of items to the schedule. The provision of the 1933 Trade Agreement between Australia and New Zealand continues in force as part of the Free Trade Agreement, except as superseded or modified by it.

Rhodesia. A trade agreement was negotiated with the Federation of Rhodesia and Nyasaland in June 1955. This agreement consisted mainly of an exchange of preferential tariff treatment over a range of items. The Federation was dissolved on 31 December 1963, but application of the Agreement was continued on a provisional basis between Australia and each of the three constituent territories Zambia (Northern Rhodesia), Rhodesia (Southern Rhodesia) and Malawi (Nyasaland). Zambia terminated the Trade Agreement with Australia on 30 June 1966 and the Agreement between Malawi and Australia lapsed on 1 January 1967. Following the unilateral declaration of independence by the Rhodesian Government in November 1965 tariff preferences between Australia and Rhodesia were suspended by both countries. Hence the trade agreement between Australia and Rhodesia is inoperative at the present time.

Malaysia. A trade agreement with the then Federation of Malaya became effective in August 1958. Under the agreement Malaya undertook to protect Australian wheat and flour from dumped or subsidised competition and to extend to Australia any tariff preferences it accords. Australia guaranteed free entry for natural rubber so long as the Papua-New Guinea crop was absorbed, and assured the Federation that natural rubber would not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment. The Agreement continues to apply between Australia and that portion of Malaysia known previously as the Federation of Malaya.

Japan. An Agreement on Commerce between the Commonwealth of Australia and Japan was signed on 6 July 1957, and formally ratified on 4 December 1957. It was provided that the Agreement would remain in force until 5 July 1960, and thereafter unless prior notice of termination should be given by either Government. The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges, and import and export licensing. Japan is not entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories. Japan also gave certain specific commitments on some important Australian export commodities.

Following a review of the agreement, a Protocol of Amendment was signed on 5 August 1963 and formally ratified on 27 May 1964. Under the Protocol Australia agreed to withdraw action against Japan under Article XXXV of the General Agreement on Tariffs and Trade, and thus a full G.A.T.T. relationship was established between the two countries.

The specific undertakings agreed in 1957 have now lapsed and the following commitments have been entered into.

Japan has:

(*a*) undertaken not to accord less favourable import treatment (apart from tariff) for raw wool than for raw cotton,

(*b*) stated that it has no present intention of imposing a duty on wool,

(*c*) undertaken to continue imports of Australian soft wheat at a stabilised level, and to purchase Australian hard wheat when necessary requirements are met,*

(*d*) stated that it will endeavour to expand opportunities for imports into Japan of Australian sugar, canned meat, leather, motor vehicles, butter, and cheese.

Australia has:

(*a*) undertaken to consult Japan on temporary protection cases affecting Japanese products (in such consultations Japan will consider whether the need for temporary protection can be obviated by measures taken in Japan),

(*b*) stated that equal opportunities of fair and equal competition are accorded to Japanese products in Australian Government purchases overseas.

The new agreement will be effective for three years from the date of ratification and thereafter subject to three months' notice of termination by either Government. There is provision for consultations to take place at least annually.

Indonesia. This agreement came into operation on 1 July 1959. It records the desirability of expanding trade between Australia and Indonesia. It also gives special recognition to the importance of the flour trade from Australia to Indonesia. Australia recognises the importance to Indonesia of its traditional exports to Australia. The agreement is subject to review and renewal annually.

Philippines. A trade agreement with the Philippines was signed in Manila on 16 June 1965. The agreement provides for an exchange of non-discriminatory treatment† while recognising existing preferences. The agreement is to operate for one year initially and continue thereafter unless one Government gives ninety days' notice of its intention to terminate it. The Philippines is not a member of G.A.T.T.

U.S.S.R. A trade agreement between Australia and the U.S.S.R. was signed in Moscow on 15 October 1965. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Korea. On 21 September 1965 a trade agreement was signed in Seoul between Australia and South Korea. Basically the agreement provides for an exchange of non-discriminatory treatment with allowances for existing preferences. The agreement, to run for one year with provision for automatic extension, also provides for non-discrimination by State trading enterprises. Both Governments undertake to use their best endeavours to increase the volume of trade between the two countries.

Poland. A trade agreement between Australia and Poland was signed in Warsaw on 20 June 1966. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Bulgaria. A trade agreement between Australia and Bulgaria was signed in Sofia on 22 June 1966. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Romania. A trade agreement between Australia and Romania was signed in Bucharest on 18 May 1967. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

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* 'Soft' wheat is fair average quality wheat; 'hard' wheat is premium grade wheat similar to that grown in North America.

† An agreement, with reservations, not to discriminate against each other with tariff or non-tariff barriers.

Hungary. A trade agreement between Australia and Hungary was signed in Budapest on 5 December 1967. The agreement provides for the exchange of non-discriminatory treatment between the two countries, while recognising existing preferences. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

Republic of China (Taiwan). On 22 April 1968 a trade agreement was signed in Canberra between Australia and the Republic of China. The agreement provides for an exchange of non-discriminatory treatment while recognising existing preferences. The agreement operated for one year initially and continues thereafter unless one government gives ninety days notice of its intention to terminate it. The Republic of China is not a member of the G.A.T.T.

Trade services

Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. A brief account of the establishment and growth of the Trade Commissioner Service before the Second World War is available in Year Book No. 51, page 496. Since the War the service has increased steadily, and by early 1970 there were over 131 Trade Commissioners and Assistant Trade Commissioners in forty-six posts in thirty-five countries. In 1957 Australia's official commercial representation overseas was extended by the introduction of a system of Government Trade Correspondents. These correspondents who as a rule already reside in particular centres overseas, are engaged on a part-time basis to carry out market research, arrange introductions between buyer and seller, and generally promote Australia's trade interests in the same way as Trade Commissioners. Each Trade Correspondent operates under the general direction of a Trade Commissioner nearby.

Trade Commissioners and, to a lesser extent, Trade Correspondents, are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organisations include: surveys of market prospects; advice on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advice and assistance to business visitors; helping to organise and carry through trade missions, trade displays, newspaper supplements, and other promotion and publicity media; providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods; helping to attract desirable investment.

In some countries Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission Trade Commissioners are called upon to act as the Australian representative.

Trade Commissioners and Assistant Trade Commissioners are drawn from either private enterprise or the public service, and applications for entry into the Service are invited periodically by public advertisement. Recruitment is generally at the Assistant Trade Commissioner level and persons selected are promoted to Trade Commissioner as experience and performance warrant. In the majority posts the Trade Commissioner is supported by an Assistant Trade Commissioner.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade and Industry (as distinct from the diplomatic and consular services administered by the Department of External Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Commercial Counsellor, Commercial Secretary or Commercial Attache).

The overseas trade representation is shown in the chapter International Relations.

Trade Missions

Since 1954 the Australian Government has sent a number of trade missions abroad as part of the campaign to increase exports. The experience acquired has indicated the need for flexibility in techniques to suit particular products or markets. At present the following types of trade missions are in use.

Survey missions. These are organised to obtain precise knowledge about the export trade potential for specific products in an overseas market. Such methods are used to explore export prospects in new or developing areas where commercial intelligence is not readily available or where a complex industry is involved and the industry requires special export knowledge.

Specialised and general trade missions. Arrangements are made for specific industries or groups of firms representing a number of industries to participate in a planned selling campaign in overseas markets with known sales potential. The mission visits the market, publicises its products and negotiates sales.

Up to the end of 1969 Australia has sent overseas forty-five trade and survey missions and five trade ships.

Further details on trade missions are included in Year Book No. 49, page 544.

Export Payments Insurance Corporation

The Export Payments Insurance Corporation was established by the Commonwealth Government in 1956 with the objective of encouraging exports by providing insurance against risks of non payment of overseas accounts. The Corporation is charged to be self-supporting, i.e. over a period its income should be adequate to cover the expenses of operation and any payments of claims which may be incurred.

The main risks of loss against which the Corporation insures are the 'commercial' risks of the insolvency or protracted default of the buyer and 'political' risks. The latter include exchange transfer difficulties; the imposition of government regulations which prevent the import of the goods into the buyer's country; war, revolution or civil disturbance in the buyer's country. For most 'political' risks insurance cover is available to a maximum of 90 per cent of the amount of loss in the pre-shipment period and a maximum of 95 per cent in the post-shipment period. The rate of cover for 'commercial' risks is fixed at 85 per cent.

The Corporation may submit to the Government, for consideration in the national interest, applications for payment insurance which are commercially unacceptable to the Corporation. In considering such applications the Government takes account of both political and economic factors.

An amendment to the *Export Payment Insurance Corporation Act* 1956 in November 1964 gave E.P.I.C. the authority to issue guarantees of payment to banks on money raised at banks for the purpose of financing exports. The existence of E.P.I.C. bank guarantees has facilitated the raising of finance by exporters.

In addition to providing the above facilities, the Corporation insures, on behalf of the Commonwealth Government, eligible Australian investments in overseas countries against the main non-commercial risks associated with investing overseas, e.g. expropriation, exchange transfer difficulties, and war damage. For an investment to be eligible it must confer benefits on both Australia and the investment host country. As at 31 December 1969, 50 policies had been written for 17 investments mainly in south-east Asia. The face value of these policies was $21 million.

Since the first policy was issued in September 1957, Australian exporters have made increasing use of the facilities of E.P.I.C. At 31 December 1969 the Corporation had 763 policies current on its commercial account (i.e. not including Government business) with a face value of over $320 million. The Corporation has issued policies covering exports to 146 countries and has insured a wide range of Australian exports.

A Consultative Council, composed of eight leading figures in the fields of banking, commerce, and industry, and two Government members advises the Corporation on its activities. The council meets two or three times a year and is appointed for a term of three years.

Further information on the Corporation is contained in Year Book No. 49, page 544. For particulars of its operations *see* Chapter 17, Private Finance of this Year Book.

Collection and presentation of statistics

Basic documents

Overseas trade statistics are compiled by the Commonwealth Bureau of Census and Statistics from copies of export and import entries submitted by exporters and importers or their agents to the Department of Customs and Excise as required by the Customs Act. The entries show the port of shipment and country of consignment for exports, and port of entry and country of origin for imports, the date, the description, quantity where required, the value (f.o.b.) of the goods, and for imports, the amount of duty paid thereon. The export statistical item is inserted by the exporter or his agent; the importer or his agent is required to insert the Tariff item number under which the goods are admitted and the statistical key code. These are verified by officers of the Department of Customs and Excise in the local offices of the Collectors and Sub-collectors of Customs.

Scope of the statistics

Overseas trade statistics are not confined to goods which are the subject of a commercial transaction and all goods moving into or out of Australia are recorded, except for those exclusions listed below. Among the items included are:

(*a*) Exports and imports on government account including defence equipment.

(*b*) Outside packages (containers, crates, etc.). These are included as a separate item in the tabulation of imports, but in exports the value recorded for each item includes the value of the outside package.

Exclusions

(*a*) Direct transit trade, i.e. goods being transhipped or moved through Australia for purposes of transport only.

(*b*) Bunkers and stores supplied to vessels and aircraft. (However, a separate 'Ships' Stores' collection is made and details are shown on page 321.)

(*c*) Those migrants' and passengers' effects for which a customs entry is not received.

(*d*) Those parcel post exports and imports of small value for which customs entries are not received.

(*e*) Certain materials for intergovernmental defence projects for which customs entries are not required.

(*f*) The value of ores and concentrates exported and imported includes the value of the gold content and the gold content is therefore not included in exports and imports of gold.

(*g*) Vessels and aircraft engaged in the transport of passengers or goods between Australia and other countries.

(*h*) Vessels and aircraft purchased for use on overseas routes and any subsequent sales made overseas of such vessels and aircraft.

(*i*) Fish and other sea products landed abroad directly from the high seas by Australian vessels.

Areas applying

The area to which all overseas trade statistics issued by this Bureau apply is the whole of the Commonwealth of Australia, comprising the States of New South Wales, Victoria, Queensland, South Australia, Western Australia, and Tasmania, the Northern Territory and the Australian Capital Territory. Non-contiguous territories under Australian administration are treated as outside countries and trade transactions between Australia and those non-contiguous territories are part of the overseas trade of Australia. Such transactions are shown separately, i.e. the trade of Australia with each particular area is separately recorded and tabulated.

Period covered by statistics

Exports and imports are recorded statistically in the month in which the entries are passed by the Department of Customs and Excise. Normally this is within a few days of loading or discharge of cargo, although delays sometimes occur in the lodging of entries and shipments are at times delayed by abnormal factors affecting sales deliveries for exports and loading of ships. Because of the distances involved entries from outlying ports are terminated on 21st of the month. Exports shipped by container from the terminal ports of Sydney, Melbourne and Fremantle are recorded in the same manner as other exports. Entries at the feeder ports of Brisbane and Adelaide are lodged prior to the movement of containers to terminal ports.

Year of compilation. Since July 1914, detailed trade statistics have been compiled for financial years (July to June). Prior to that details were compiled on a calendar year basis.

Valuation

Commencing with the Bureau publications issued at the close of 1965 values in overseas trade statistics have been expressed in $A. Prior to this values were expressed in £ (Aust.) except for imports into Australia which, up until 15 November 1947, were recorded in British currency values. Full explanatory notes on the methods of recording import values before and since 15 November 1947 were included in Year Book No. 37, page 396.

All values in overseas trade statistics are determined on a 'free on board (f.o.b.) port of shipment' basis. This means that all charges (in particular the cost of freight and insurance) incurred after the goods have been exported from the port of shipment are excluded. Only transport and service charges incurred, or usually incurred, prior to export are included in the determination of trade values.

The procedure adopted to value exports and imports is as follows.

Exports. The recorded value of goods exported includes the cost of containers and outside packages and has been determined, since July 1937, as follows.

(*a*) Goods sold to overseas buyers before export are valued at the Australian f.o.b. port of shipment equivalent to the actual price at which the goods were sold.

(*b*) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent to the price paid for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale.

An account of the bases of valuation in operation prior to July 1937 is given on page 396 of Year Book No. 37.

Imports. The recorded value of goods imported is the amount on which duty is payable or would be payable if the duty were *ad valorem.* Value for duty is the f.o.b. port of shipment equivalent of either:

(*a*) the actual price paid or to be paid by the Australian importer plus any special deduction (transactions value); or

(*b*) 'the current domestic value' of the goods; whichever is the higher.

'Current domestic value' is defined as 'the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country.'

Quantity data

Where quantities are shown they are generally, but not invariably, expressed in terms of the normal trade unit. Where 'cental' is used, the unit is equivalent to 100 lb avoirdupois. Quantities are not tabulated in respect of statistical items for which there is no appropriate unit of quantity (for example, a statistical item which covers a number of commodities that cannot be recorded under a uniform unit of quantity).

Statistical concepts of trade

Trade systems. There are two generally accepted systems of recording overseas trade statistics, namely (*a*) special trade and (*b*) general trade. The Statistical Office of the United Nations defines the two systems as follows.

'*System of Trade.* Two systems of recording trade are in common use, differing mainly in the way warehoused and re-exported goods are recorded.

(*a*) *Special Trade.* Special imports are the combined total of imports directly for domestic consumption (including transformation and repair) and withdrawals from bonded warehouses or free zones for domestic consumption. Special exports comprise exports of national merchandise, namely, goods wholly or partly produced or manufactured in the country, together with exports of nationalised goods. (Nationalised goods are goods which, having been included in special imports, are then exported without transformation.)

(*b*) *General Trade.* General imports are the combined total of imports directly for domestic consumption and imports into bonded warehouse or free zone. General exports are the combined total of national exports and re-exports. Re-exports, in the general trade system, consist of the outward movement of nationalised goods plus goods which, after importation, move outward from bonded warehouse or free zone without having been transformed.

Direct transit trade, i.e. goods merely being transhipped or moving through the country for purposes of transport only, is excluded from the statistics of both special and general trade.'

Statistics in this volume are compiled on the 'general trade' basis; imports on a 'special trade' basis are published in the bulletin *Imports Cleared for Home Consumption*, issued annually.

Australian produce (national produce) is defined as goods, materials or articles which have been produced, manufactured or partly manufactured in Australia, except goods which were originally imported and have undergone only repair or minor operations which leave them essentially unchanged.

Re-exports are defined as goods, materials or articles originally imported which are exported either in the same condition in which they were imported or after undergoing repair or minor operations which leave them essentially unchanged. 'Minor operations' include blending, packaging, bottling, cleaning, sorting, husking, and shelling.

Merchandise and non-merchandise trade. Total trade is divided into merchandise and non-merchandise trade. Merchandise trade is the equivalent of total exports and imports less certain items specified as non-merchandise. Since July 1965 merchandise and non-merchandise trade have been defined in accordance with international standards recommended by the United Nations. A complete description of the commodities included is contained in the Australian Export and Import Commodity Classifications published by the Bureau of Census and Statistics.

Balance of trade. Statistics of the balance of trade for balance of payments purposes are derived by making certain adjustments, relating both to scope and valuation to statistics of merchandise exports and imports. Statistics on the adjusted basis are published in statistical bulletins relating to the balance of payments. The adjustments include the following: imports are adjusted for the overall excess of recorded value for duty over the actual selling price to the importer; exports and imports of goods for repair and return and the value of repairs are deducted from merchandise trade; exports and imports of ships and aircraft for use on overseas routes, certain imports of defence equipment, and other trade items for which customs entries are not required are added. Adjustments are also made for timing differences between the change of ownership and the lodgment of import entries in the case of certain large items of equipment (e.g. warships).

The balance of trade is derived by comparing statistics of exports on a balance of payments basis with statistics of imports on that basis.

Balance of payments

Estimates of the balance of trade do not, however, measure Australia's total balance of payments which includes other transactions such as freight and insurance changes on imports, shipping expenditure in Australian ports, overseas travel, payments of profits and interest, and private and government borrowing overseas.

Country of consignment or origin

'Country of consignment' referred to in exports tables means the country to which goods were consigned at the time of export. Where the country of consignment is not determined at the time of export the goods are recorded as exported 'For orders'. 'Country of origin' referred to in import tables means the country of production. Classification of imports according to country of shipment was discontinued after the year 1920-21. A brief account of the dual system of import classification by country operating prior to the year 1921–22 is given on page 500 of Year Book No. 51.

Throughout this chapter, countries listed are shown in alphabetical order.

Commodity classifications

Overseas trade statistics were compiled according to the Statistical Classification of Imports and Exports up to and including 1964–65 for imports and 1965–66 for exports. From July 1965 imports have been classified according to the Australian Import Commodity Classification and exports have been classified according to the Australian Export Commodity Classification from July 1966. Both classifications are based on the Standard International Trade Classification, Revised (S.I.T.C.), which is closely related to the Brussels Tariff Nomenclature used in the Australian Customs Tariff introduced in July 1965.

Pre-federation records

In the years preceding federation each State recorded its trade independently and in so doing did not distinguish other Australian States from external countries. The aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, but the results obtained are subject to error, since past records of values and the direction of exports and imports were not on uniform lines. Exports and imports for years prior to federation may be found in early issues of the Year Book, particularly Year Book No. 2. On the introduction of the *Customs Act* 1901 the methods of recording values were made uniform throughout the States.

Total overseas trade

The following table shows the total trade of Australia with overseas countries from 1901 to 1968–69. The period 1901 to 1965–66 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in earlier issues, but figures for imports in issues prior to No. 37 were expressed in British currency.

OVERSEAS TRADE: AUSTRALIA

1949-50 TO 1968-69

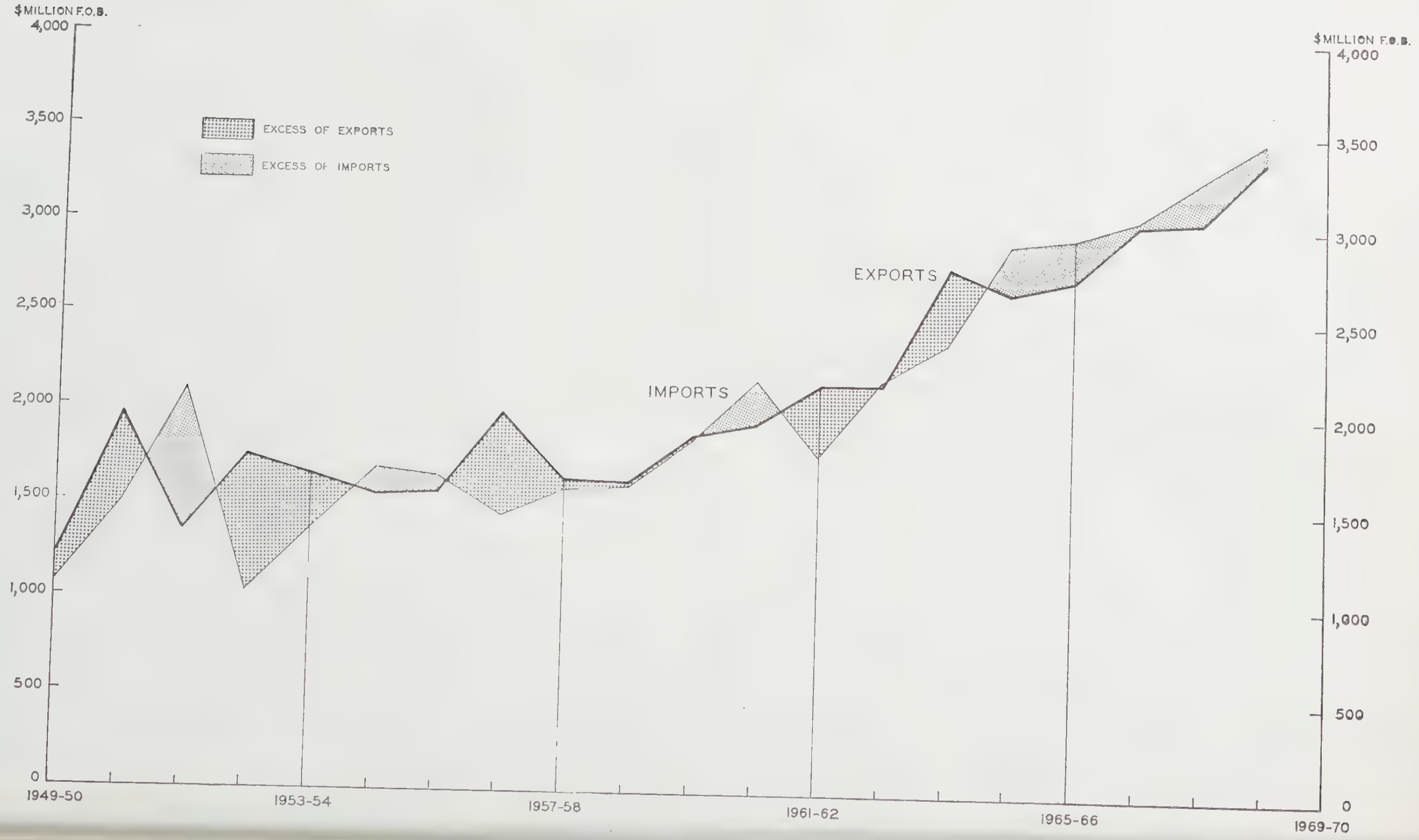


PLATE 25

OVERSEAS TRADE: AUSTRALIA, 1901 TO 1968-69
(f.o.b.)

Period	Exports	Imports	Excess of exports (+) or imports (−)	Value per head of population	
				Exports	Imports
Annual average—	$m	$m	$m	$	$
1901 to 1905	102	71	+ 31	26.2	18.2
1906 to 1910	(a)139	94	+ 45	32.6	22.0
1911 to 1915–16	149	133	+ 16	30.8	27.6
1916–17 to 1920–21	230	183	+ 47	43.8	34.8
1921–22 to 1925–26	269	249	+ 20	45.8	42.2
1926–27 to 1930–31	263	239	+ 24	41.0	37.2
1931–32 to 1935–36	242	148	+ 94	36.2	22.2
1936–37 to 1940–41	315	247	+ 68	45.4	35.6
1941–42 to 1945–46	328	423	− 95	44.8	58.2
1946–47 to 1950–51	1,143	899	+244	145.4	114.3
1951–52 to 1955–56	1,572	1,566	+ 6	176.4	175.6
1956–57 to 1960–61	1,811	1,729	+ 82	182.0	173.7
1961–62 to 1965–66	2,492	2,430	+ 62	224.8	218.6
Year—					
1959–60	1,875	1,854	+ 21	184.5	182.4
1960–61	1,938	2,175	−237	186.5	209.3
1961–62	2,155	1,769	+385	202.4	166.2
1962–63	2,152	2,163	− 11	198.5	199.4
1963–64	2,782	2,373	+410	251.6	214.5
1964–65	2,651	2,905	−253	235.1	257.5
1965–66	2,721	2,939	−218	236.6	255.6
1966–67	3,024	3,045	− 21	258.3	260.1
1967–68	3,045	3,264	−220	255.3	273.7
1968–69	3,374	3,469	− 94	277.2	285.0

(a) Prior to 1906, ships' stores were included in exports. For value of such goods loaded on overseas vessels and aircraft during each of the years 1966–67 to 1968–69, *see* page 321.

Plate 25 opposite shows the overseas trade to Australia from 1949–50 to 1968–69.

The following table shows particulars of merchandise and non-merchandise trade for each of the years 1964–65 to 1968–69.

MERCHANDISE AND NON-MERCHANDISE TRADE: AUSTRALIA, 1964-65 TO 1968-69
($'000 f.o.b.)

EXPORTS

Year	Merchandise			Non-merchandise			Total
	Australian produce	Re-exports	Total	Australian produce	Re-exports	Total	
1964–65	2,535,930	43,238	2,579,168	45,983	26,298	72,281	2,651,449
1965–66	2,578,184	55,348	2,633,532	59,913	27,508	87,421	2,720,953
1966–67	2,872,396	62,176	2,934,572	63,827	25,498	89,325	3,023,897
1967–68	2,861,812	73,388	2,935,200	73,344	36,132	109,476	3,044,675
1968–69	3,156,231	84,054	3,240,283	88,848	45,131	133,980	3,374,263

IMPORTS

Year	Merchandise	Non-merchandise	Total
1964–65	2,841,326	63,377	2,904,703
1965–66	2,898,280	41,212	2,939,492
1966–67	3,003,973	41,368	3,045,341
1967–68	3,215,003	49,470	3,264,473
1968–69	3,423,276	45,229	3,468,505

Classified summary of Australian overseas trade

The following table shows exports and imports according to divisions of the Australian Export and Import Commodity Classifications (based on the Standard International Trade Classification) during each of the years 1966–67 to 1968–69.

EXPORTS AND IMPORTS: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1966-67 TO 1968-69

($'000 f.o.b.)

Division No.	Description	*Exports*			*Imports*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	6,085	5,891	5,444	2,563	2,745	2,681
01	Meat and meat preparations	278,822	279,155	285,800	486	957	1,044
02	Dairy products and eggs	114,401	92,855	79,473	3,655	3,817	4,506
03	Fish and fish preparations	24,968	34,000	37,025	28,793	27,463	30,677
04	Cereals and cereal preparations	463,203	419,087	351.400	2,875	3,790	6,332
05	Fruit and vegetables	100,349	110,780	96,757	17,538	19,268	21,311
06	Sugar, preparations, honey	105,514	104,972	129,753	2,268	2,495	2,606
07	Coffee, tea, cocoa, and spices	4,776	2,915	2,867	50,272	46,334	49,288
08	Feeding stuff for animals	7,185	6,383	8,314	7,881	8,176	6,502
09	Miscellaneous food preparations	2,831	2,949	3,420	1,937	2,051	2,853
11	Beverages	6,790	7,535	7.363	10,401	13,457	15,464
12	Tobacco and tobacco manufactures	2,363	2,623	2.374	27,451	22.460	28,362
21	Hides. skins and fur skins. undressed	88,618	64,159	77,342	2,461	2,426	2,822
22	Oil seeds, oil nuts and oil kernels	548	837	1,663	5,500	9,495	7,356
23	Crude rubber (including synthetic and reclaimed)	565	465	768	27,695	24,482	27,837
24	Wood, timber and cork	6,319	3,753	3,609	34,910	41,506	47,585
25	Pulp and waste paper	170	227	370	26,396	25,145	26,410
26	Textile fibres and their waste	809,536	718,516	800,420	33,424	31,812	33,101
27	Crude fertilisers and minerals (*see also* Divisions 32 and 33)	3,439	3,640	5,361	59,798	71,008	66,054
28	Metalliferous ores and metal scrap	163,340	242,574	340,372	4,293	5,956	5,109
29	Crude animal and vegetable materials, n.e.s.	13,040	11,442	10,659	11,434	11,999	12,146
32	Coal, coke, and briquettes	73,201	88,594	119,142	385	356	581
33	Petroleum and petroleum products	30,351	33,224	26.426	246,150	240,600	251,185
34	Petroleum gases and other gaseous hydrocarbons	273	106	112	26	45	31
41	Animal oils and fats	15,458	10,794	12,118	1,144	1.158	777
42	Fixed vegetable oils and fats	92	197	97	12,179	10,833	10,523
43	Animal and vegetable oils, fats and waxes, processed	929	827	738	1,453	1,713	2,161
51	Chemical elements and compounds	19,592	57,711	84,763	103,047	100.195	108,508
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	257	397	270	2,801	2,349	1,786
53	Dyeing, tanning and colouring materials	5,037	5,280	8,410	18,258	17,934	19,046
54	Medicinal and pharmaceutical	14,024	13,294	15,864	35,663	38,011	39.803
55	Essential oils and perfume materials; toilet and cleansing preparations	3,764	4,345	4,580	13,913	12,804	14,289
56	Fertilisers, manufactured	81	161	177	10,751	12,092	11,589
57	Explosives and pyrotechnic products	2,860	2,348	2,267	5,153	7,027	4,586
58	Plastic materials, regenerated cellulose and artificial resins	6,750	5,379	6,201	68,870	76,096	80,342
59	Chemical materials, n.e.s.	16,794	15,399	19,346	38,829	42,496	48,252
61	Leather, leather manufactures, n.e.s. and dressed fur skins	6,272	5,512	6,500	6,035	6,056	6,145
62	Rubber manufactures, n.e.s.	2,200	5.055	7,606	28,357	39.587	37,040
63	Wood and cork manufactures (excluding furniture)	2,161	1,959	2,817	10,271	12.931	14.373
64	Paper, paperboard and manufactures	10,035	9,235	10,534	88,338	93,354	99,689
65	Textile yarn, fabrics, made-up articles	11,290	12,146	15,882	239,966	248.069	263.400
66	Non-metallic mineral manufactures, n.e.s.	17,418	18,002	25.124	55,166	57,691	65,772
67	Iron and steel	111,022	91,835	110,402	65,523	86,921	95,848
68	Non-ferrous metals	131,280	149,898	181,069	23,305	24,246	26,088
69	Manufactures of metal, n.e.s.	31,982	29,524	31,380	69,136	75,416	79,286
71	Machinery, other than electric	57,162	57,960	65,895	554,303	586.474	603.839
72	Electrical machinery and apparatus	24,958	25,564	26,940	193,784	207,781	215,262
73	Transport equipment	62,490	73.665	89.214	395,706	455.870	508,729
81	Sanitary, plumbing, heating and lighting fixtures and fittings	1,551	1,423	1,431	3,652	4.048	4,648
82	Furniture	883	1,275	1,297	2,865	3.614	4,911
83	Travel goods, handbags, etc.	127	167	166	4,144	4,748	5,052
84	Clothing and accessories; articles of knitted or crocheted fabric	4,389	5.537	7.488	20,917	25.657	29,813
85	Footwear, gaiters and similar articles	480	512	484	6,526	8,775	10,660
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	11,842	13,922	17,382	84,829	92.173	100,950
89	Manufactured articles, n.e.s.	19,479	20,246	20,661	120,266	130.498	142,100
9(A)	Commodities and transactions not classified according to kind	35,224	58,949	66,943	110,231	110,542	116,165
	Total merchandise	*2,934,572*	*2,935,200*	*3,240,283*	*3,003,973*	*3,215,003*	*3,423,276*
9(B)	Non-merchandise	89,325	109,476	133,980	41,368	49,470	45,229
	Total	**3,023,897**	**3,044,675**	**3,374,263**	**3,045,341**	**3,264,473**	**3,468,505**

Exports of principal articles of Australian produce

EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE, 1966-67 TO 1968-69

Article		*Quantity*			*Value ($'000 f.o.b.)*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Meat, fresh, chilled or frozen—							
Of bovine animals	'000 lb	578,603	564,250	564,547	198,311	198,630	211,012
Of sheep, lambs and goats	,,	212,286	254,477	234,349	43,642	49,984	45,711
Meat, canned or bottled	,,	47,509	45,647	36,628	13,141	12,676	10,062
Sausage casings (natural)	. .	..	..	..	6,662	5,494	5,350
Other meat (incl. poultry, game, rabbits)	. .	..	..	..	23,701	17,843	19,006
Milk and cream	'000 lb	200,958	149,863	153,987	29,532	21,961	18,974
Butter	,,	230,210	172,453	165,501	64,841	46,976	40,523
Cheese	,,	57,195	76,036	56,096	15,262	17,933	13,872
Fish (incl. shell fish) fresh or preserved by cold process	,,	18,515	21,386	20,725	23,109	30,983	34,301
Wheat	tons	6,403,160	6,395,852	4,813,574	361,227	342,767	258,334
Barley, unprepared	,,	417,814	127,246	443,551	21,569	6,569	18,246
Oats	,,	395,243	179,152	328,096	17,450	8,407	13,042
Flour (wheaten), plain white	'000 lb	713,306	760,454	699,175	23,074	23,534	21,807
Fruit, dried—							
Grapes	,,	152,011	151,131	137,776	21,148	20,775	19,513
All other	,,	8,038	8,028	2,087	2,037	2,015	5,401
Fruit, canned or bottled	,,	324,970	425 328	311,061	39,995	50,661	37,842
Sugar, the produce of cane	tons	1,652,263	1,597,235	2,029,177	100,026	97,582	122,214
Wine	gallons	1,774,102	1,839,074	1,802,574	3,169	3,153	3,395
Hides and skins—							
Calf, cattle and horse	'000 lb	120,178	112,067	119,866	21,099	14,685	17,592
Sheep and lamb (excl. pieces)	'000	28,768	30,989	30,565	62,856	46,127	55,853
Timber (excl. dunnage, stumps and the like)—							
Logs and undressed (incl. shooks and staves)	'000 super ft	18,009	12,657	14,310	2,706	2,465	2,505
Railway sleepers	,,	26,023	5,621	3,312	3,279	862	521
Wool—							
Greasy	'000 lb	1,366,557	1,390,319	1,467,938	726,310	643,275	717,014
Scoured or washed, carbonised, tops, noils and waste	,,	112,068	123,587	118,228	80,141	72,456	78,493
Iron ore concentrates (except roasted iron pyrites)	tons	5,468,386	12,325,812	20,071,987	46,013	103,070	179,515
Copper ores and concentrates	,,	38,310	47,256	41,073	8,902	10,098	9,769
Lead ores and concentrates	,,	108,994	113,498	111,145	19,439	22,047	21,605
Zinc ores and concentrates	,,	250,499	311,437	334,817	17,421	21,305	22,235
Titanium and zirconium concentrates	,,	845,943	920,767	1,077,300	32,141	35,316	40,025
Coal	,,	8,819,367	10,206,765	13,814,749	71,934	85,150	117,103
Petroleum and petroleum products	. .	..	..	..	29,880	32,976	26,240
Tallow, inedible	cwt	1,612,166	1,654,071	2,035,529	11,509	8,644	9,482
Leather (excl. leather manufactures)	. .	..	..	..	5,887	5,027	5,791
Lead and lead alloys, unworked	cwt	4,727,432	5,224,428	4,919,311	54,321	62,895	65,524
Copper and copper alloys	,,	433,620	578,925	969,743	27,399	33,104	53,420
Zinc and zinc alloys	,,	2,280,770	1,782,718	2,311,239	28,608	20,877	27,291
Machinery and transport equipment	. .	..	..	..	101,420	104,673	125,126
Drugs and chemicals	. .	..	..	..	48,633	83,872	117,839
Paper, pulp and stationery	. .	..	..	..	16,094	13,786	15,310
Motor vehicles (new, assembled)	No	8,698	7,549	7,202	12,883	12,015	11,828
All other articles	. .	..	..	..	499,452	542,488	626,393
Total, Australian produce	. .	..	..	..	**2,936,223**	**2,935,156**	**3,245,079**

Exports, by industrial group

The following table provides an analysis of Australian exports for the years 1966–67 to 1968–69. This analysis is designed to show fluctuations in exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily somewhat conventional.

EXPORTS OF AUSTRALIAN PRODUCE, BY INDUSTRIAL GROUP
1966–67 TO 1968–69

Industrial group	*Value ($'000 f.o.b.)*			*Proportion of value of exports of Australian produce (excluding gold) (per cent)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Agriculture, horticulture and viticulture—						
Unprocessed	452,580	411,004	350,384	15.5	14.1	10.8
Processed	214,862	225,144	232,822	7.4	7.7	7.3
Total, agriculture, etc.	667,442	636,148	583,206	22.9	21.8	18.1
Pastoral—						
Unprocessed	1,077,917	975,344	1,069,544	36.9	33.4	33.2
Processed	127,172	110,184	118,030	4.4	3.8	3.6
Total, pastoral	1,205,089	1,085,528	1,187,574	41.3	37.2	36.8
Dairy and farmyard—						
Unprocessed	4,711	4,492	5,196	0.2	0.1	0.2
Processed	116,907	92,598	77,681	4.0	3.2	2.4
Total, dairy, etc.	121,618	97,090	82,877	4.2	3.3	2.6
Mines and quarries (other than gold)—						
Unprocessed	207,665	293,978	408,548	7.1	10.1	12.7
Processed	134,694	161,977	193,187	4.6	5.5	6.0
Total, mines, etc.	342,359	455,955	601,735	11.7	15.6	18.7
Fisheries—						
Unprocessed	25,616	32,923	38,066	0.9	1.1	1.2
Processed	2,264	3,402	3,088	0.1	0.1	0.1
Total, fisheries	27,880	36,325	41,154	1.0	1.2	1.3
Forestry—						
Unprocessed	823	521	315	0.0	0.0	0.0
Processed	6,467	4,264	4,425	0.2	0.2	0.1
Total, forestry	7,290	4,785	4,740	0.2	0.2	0.1
Total, primary produce—						
Unprocessed	1,769,312	1,718,262	1,872,053	60.6	58.8	58.1
Processed	602,366	597,569	629,233	20.7	20.5	19.5
Total, primary produce	*2,371,678*	*2,315,831*	*2,501,286*	*81.3*	*79.3*	*77.6*
Manufactures	455,887	491,322	597,934	15.6	16.8	18.6
Refined petroleum oils	29,085	32,208	25,560	1.0	1.1	0.8
Unclassified	61,477	80,422	97,592	2.1	2.8	3.0
Total Australian produce (excluding gold)	**2,918,127**	**2,919,783**	**3,222,373**	**100.0**	**100.0**	**100.0**
Re-exports (excluding gold)	87,674	109,519	129,185	..	..	..
Gold exports	18,096	15,373	22,706	..	..	..
Total value of recorded exports	3,023,897	3,044,675	3,374,263	..	..	..

The items enumerated indicate how arbitrary is the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

Imports of merchandise, by economic class

The following table shows imports of merchandise into Australia during the years 1966–67 to 1968–69 classified according to economic classes of (i) purpose and (ii) degree of manufacture.

IMPORTS OF MERCHANDISE, BY ECONOMIC CLASS: AUSTRALIA 1966–67 TO 1968–69

	Value ($'000 f.o.b.)			*Proportion of value of imports of merchandise (per cent)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
PURPOSE						
Producers' materials for use in—						
Building and construction	86,742	99,887	131,369	2.9	3.1	3.9
Rural industries	54,706	59,132	55,631	1.8	1.8	1.6
Manufacturing—						
Motor vehicle assembly(*a*)	182,096	220,842	235,990	6.1	6.9	6.9
Other(*b*)	1,066,924	1,132,178	1,175,519	35.5	35.2	34.4
Total, producers' materials(b)	*1,390,468*	*1,512,040*	*1,598,509*	*46.3*	*47.0*	*46.8*
Capital equipment(*c*)—						
Producers' equipment	663,930	699,475	723,851	22.1	21.8	21.1
Transport equipment—						
Complete road vehicles and assembled chassis	74,921	89,021	108,779	2.5	2.8	3.2
Railway equipment, vessels and civil aircraft	110,717	101,469	73,262	3.7	3.1	2.0
Total, capital equipment	*849,568*	*889,965*	*905,892*	*28.3*	*27.7*	*26.3*
Finished consumer goods—						
Food, beverages and tobacco	109,504	113,600	126,777	3.6	3.5	3.7
Clothing and accessories	24,467	30,967	35,468	0.8	1.0	1.1
All other(*d*)	383,938	433,071	463,303	12.8	13.5	13.5
Total, finished consumer goods(d)	*517,909*	*577,638*	*625,548*	*17.2*	*18.0*	*18.3*
Fuels and lubricants(*e*)	30,788	27,030	33,388	1.0	0.8	1.0
Auxiliary aids to production(*f*)	96,611	83,098	85,800	3.2	2.6	2.5
Munitions and war stores	118,629	125,232	174,139	4.0	3.9	5.1
Grand total	**3,003,973**	**3,215,003**	**3,423,276**	**100.0**	**100.0**	**100.0**
DEGREE OF MANUFACTURE(*g*)						
Producers' materials—						
Crude	405,565	419,516	423,590	13.5	13.0	12.4
Simply transformed	212,270	220,866	231,376	7.1	6.9	6.8
Elaborately transformed	772,633	871,658	943,543	25.7	27.1	27.6
Finished consumer goods—						
Crude	28,444	26,562	32,912	0.9	0.8	1.0
Simply transformed	42,469	44,367	48,046	1.4	1.4	1.4
Elaborately transformed	446,996	506,709	544,590	14.9	15.8	15.9
Total imports—						
Crude	434,009	446,078	456,502	14.4	13.9	13.4
Simply transformed	335,716	343,949	368,043	11.2	10.7	10.8
Elaborately transformed	2,234,248	2,424,976	2,598,731	74.4	75.4	75.8
Grand total	**3,003,973**	**3,215,003**	**3,423,276**	**100.0**	**100.0**	**100.0**

(*a*) Owing to insufficient information, it is not possible to treat unassembled tractors and other machinery in a similar manner to motor vehicles, and all such machinery and replacement parts therefor are treated as capital equipment whether imported in an assembled or unassembled condition. (*b*) Excludes a percentage for piece goods to be sold at retail, and paper to be used solely for wrapping, which are recorded in Finished consumer goods, All other, and Auxiliary aids to production, respectively. (*c*) *See* footnote (*a*). (*d*) Includes a percentage for piece goods to be sold at retail; *see* footnote (*b*). (*e*) Excludes crude petroleum, which is included in Producers' materials, Manufacturing—Other. (*f*) Includes a percentage for paper to be used solely for wrapping; *see* footnote (*b*). (*g*) The class Fuels and lubricants consists of goods 'simply transformed', and the classes Capital equipment and Munitions and war stores entirely of goods 'more elaborately transformed'. The class Auxiliary aids to production is about equally divided between goods 'simply transformed' and 'elaborately transformed'.

Direction of Overseas Trade

Exports and imports, by country of consignment or of origin

The following two tables show the value and percentage of Australian exports and imports during each of the years 1966–67 to 1968–69 according to principal country of consignment or origin. The proportions of Australian exports and imports by country of origin or consignment are shown graphically on plate 26 on page 318.

AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY COUNTRY OF CONSIGNMENT OR ORIGIN, 1966–67 TO 1968–69

($'000 f.o.b.)

Country	*Exports*			*Imports*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Austria	1,910	1,113	2,321	8,049	7,802	7,784
Belgium-Luxembourg	55,679	46,855	43,784	20,241	20,454	20,140
Brunei	252	9,351	799	11,484	15,410	18,562
Canada	51,690	53,541	67,611	117,199	140,518	153,084
Ceylon	15,787	16,173	15,083	15,535	15,014	15,184
China (mainland)	128,486	126,459	67,214	26,148	23,592	29,651
China, Republic of (Taiwan)	18,842	20.388	26,415	4,801	8,590	11,787
Czechoslovakia	10,231	8,018	8,316	6,497	6,824	8,209
Denmark	3,224	2,948	2,379	7,397	7,709	9,231
Fiji	15,631	18,362	19,306	4,639	4,676	5,040
Finland	2,166	2,619	3,521	15,929	15,679	15,571
France	101,276	88,594	112,526	94,138	88,045	63,442
Germany, Federal Republic of	75,734	91,428	104,550	158,539	189,758	201,544
Hong Kong	64,387	59,876	70,973	34,193	36,729	41,075
India	58,339	65,466	32,017	33,889	35,296	32,196
Indonesia	6,938	13,870	20,665	56,629	55,430	59,956
Iran	9,331	5,391	7,164	25,901	18,893	13,464
Iraq	9,021	12,316	1,984	14,975	9,311	11,356
Italy	126,757	87,764	106,726	53,178	72,716	78,962
Japan	586,437	642.072	822,101	296,044	343.310	414,676
Korea, Republic of	8,088	8,417	13,469	1,428	1,556	2,493
Kuwait	9,937	9,266	8,197	34,992	41,506	41,611
Malaysia	61,781	56,485	63,670	27,985	28,842	30,022
Mexico	15,364	15,632	16,118	4,871	6,846	3,344
Nauru	5,222	4,319	3,635	11,507	13,538	15,039
Netherlands	36,970	36,061	53,759	47,056	48,337	50,084
New Zealand	177,352	155,579	158,846	47,274	61,648	74,734
Norway	10,076	9,633	7,133	9,790	12,755	12,673
Pakistan	53,143	5,944	6,905	17,999	14,562	17,068
Papua and New Guinea	86,894	92,433	105,832	18,172	19,167	29,130
Philippines	32,801	41,722	44,820	2,793	3,555	3,136
Poland	18,678	19,644	22,800	1,879	2,271	3,251
Saudi Arabia	10,447	13,076	8,923	50,505	49,030	43,558
Singapore	56,486	58,138	63,325	8,708	8,564	12,496
South Africa	41,251	28,463	45,629	17,090	19,506	20,129
Spain	14,274	8,815	11,793	6,667	7,254	10,194
Sweden	7,302	6,971	8,707	50,850	50,178	50,588
Switzerland	3,733	3,028	2,911	41,777	47,778	47,826
Thailand	23,722	23,494	23,872	1,666	1,969	1,932
United Kingdom	404,958	426,314	424,836	723,811	723,010	747,155
United States of America	359,388	402,810	480,001	781,263	840,886	883,068
U.S.S.R.	20,330	27,446	40,289	1,678	2,107	2,039
Yugoslavia	18,826	16,067	14,941	392	602	1,721
Other countries	197,669	198,616	204,179	114,135	123,691	136,817
Country unknown	7,087	3,698	4,218	15,648	19,559	17,483
Total	**3,023,897**	**3,044,675**	**3,374,263**	**3,045,341**	**3,264,473**	**3,468,505**

AUSTRALIAN EXPORTS AND IMPORTS
PROPORTIONS, BY COUNTRY OF CONSIGNMENT OR ORIGIN, 1966–67 TO 1968–69

(Per cent)

Country	*Exports*			*Imports*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Austria	0.06	0.04	0.07	0.26	0.24	0.23
Belgium-Luxembourg	1.84	1.54	1.30	0.66	0.63	0.58
Brunei	0.01	0.31	0.02	0.38	0.47	0.53
Canada	1.71	1.76	2.00	3.85	4.30	4.41
Ceylon	0.52	0.53	0.45	0.51	0.46	0.44
China (mainland)	4.25	4.15	1.99	0.86	0.72	0.85
China, Republic of (Taiwan)	0.62	0.67	0.78	0.16	0.26	0.34
Czechoslovakia	0.34	0.26	0.25	0.21	0.21	0.24
Denmark	0.11	0.10	0.07	0.24	0.24	0.27
Fiji	0.52	0.60	0.57	0.15	0.14	0.15
Finland	0.07	0.09	0.10	0.52	0.48	0.45
France	3.35	2.92	3.33	3.09	2.70	1.83
Germany, Federal Republic of	2.51	3.00	3.09	5.21	5.81	5.81
Hong Kong	2.13	1.97	2.10	1.12	1.13	1.18
India	1.93	2.15	0.95	1.11	1.08	0.93
Indonesia	0.23	0.46	0.61	1.86	1.70	1.73
Iran	0.31	0.18	0.21	0.85	0.58	0.39
Iraq	0.30	0.40	0.06	0.49	0.29	0.33
Italy	4.19	2.88	3.16	1.75	2.23	2.28
Japan	19.39	21.09	24.36	9.72	10.52	11.95
Korea, Republic of	0.27	0.28	0.40	0.05	0.05	0.07
Kuwait	0.33	0.32	0.24	1.15	1.27	1.20
Malaysia	2.04	1.86	1.89	0.92	0.88	0.87
Mexico	0.51	0.52	0.48	0.16	0.21	0.10
Nauru	0.17	0.14	0.11	0.38	0.41	0.44
Netherlands	1.22	1.19	1.59	1.55	1.48	1.44
New Zealand	5.87	5.11	4.71	1.55	1.89	2.15
Norway	0.33	0.32	0.21	0.32	0.39	0.37
Pakistan	1.76	0.20	0.20	0.59	0.45	0.49
Papua and New Guinea	2.87	3.04	3.14	0.60	0.59	0.84
Philippines	1.09	1.37	1.33	0.09	0.11	0.09
Poland	0.62	0.65	0.68	0.06	0.07	0.09
Saudi Arabia	0.35	0.43	0.26	1.66	1.50	1.26
Singapore	1.87	1.91	1.88	0.29	0.26	0.36
South Africa	1.36	0.93	1.35	0.56	0.60	0.58
Spain	0.47	0.29	0.35	0.22	0.22	0.29
Sweden	0.24	0.23	0.26	1.67	1.54	1.46
Switzerland	0.12	0.10	0.09	1.37	1.46	1.38
Thailand	0.79	0.77	0.71	0.05	0.06	0.06
United Kingdom	13.39	13.94	12.59	23.77	22.14	21.54
United States of America	11.88	13.22	14.23	25.65	25.76	25.46
U.S.S.R.	0.67	0.90	1.19	0.06	0.06	0.06
Yugoslavia	0.62	0.53	0.44	0.01	0.02	0.05
Other Countries	6.54	6.53	6.07	3.76	3.79	3.93
Country unknown	0.23	0.12	0.13	0.51	0.60	0.50
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Exports, by country of consignment and by description

The following table shows details of exports to principal countries, classified according to divisions of the Australian Export Commodity Classification, for the years 1966–67 to 1968–69.

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69

($'000 f.o.b.)

Division No.	Description	*Belgium-Luxembourg*			*Canada*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	..	..	..	1	2	..
01	Meat and meat preparations	129	63	31	14,995	13,261	20,017
02	Dairy products and eggs	..	3	3	154	44	380
03	Fish and fish preparations	134	188	50	129	106	217
04	Cereal grains and cereal preparations	157	832	201	256	62	99
05	Fruit and vegetables	416	543	407	11,052	12,225	12,447
06	Sugar and sugar preparations and honey	7	7	6	7,542	4,588	8,395
07	Coffee, tea, cocoa, spices and manufactures thereof	..	..	..	44	12	23
08	Feeding-stuff for animals (except unmilled cereals)	..	..	..	14	10	23
09	Miscellaneous preparations chiefly for food	5	4	5	3	1	2
11	Beverages	1	..	..	1,107	1,144	1,353
12	Tobacco and tobacco manufactures	..	..	..	..	..	1
21	Hides, skins and fur skins, undressed	779	139	191	5	12	17
22	Oil-seeds, oil nuts and oil kernels	35	10	1	..	..	..
23	Crude rubber (including synthetic and reclaimed)	..	..	..	..	..	..
24	Wood, timber and cork	4	2	9	12	13	17
25	Pulp and waste paper	..	..	..	..	..	..
26	Textile fibres and their waste	39,837	32,728	32,708	6,603	5.907	4,641
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	25	89	7	1	4	1
28	Metalliferous ores and metal scrap	10,361	9,493	7,000	923	2,956	5,224
29	Crude animal and vegetable materials, n.e.s.	52	30	33	496	550	494
32	Coal, coke and briquettes	..	..	..	..	..	..
33	Petroleum and petroleum products	..	24	..	..	1	2
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	2	..	31	30	14	20
42	Fixed vegetable oils and fats	..	..	..	..	..	..
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	3	..	..	73	51	30
51	Chemical elements and compounds	..	..	..	68	3,536	4,337
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	..	..	..	..
53	Dyeing, tanning and colouring materials	3	3	2	32	4	9
54	Medicinal and pharmaceutical products	239	174	120	60	37	4
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	3	3	6	4	4	
56	Fertilisers, manufactured	..	..	..	..	..	..
57	Explosives and pyrotechnic products	..	..	..	6	1	..
58	Plastic materials, regenerated cellulose and artificial resins	3	..	..	27	18	10
59	Chemical materials and products, n.e.s.	..	21	64	293	319	181
61	Leather, leather manufactures, n.e.s., and dressed fur skins	1	1	12	28	39	102
62	Rubber manufactures, n.e.s.	..	2	4	1	1	491
63	Wood and cork manufactures (except furniture)	5	3	6	35	61	16
64	Paper, paperboard and manufactures thereof	..	3	2	6	4	22
65	Textile yarn, fabrics, made-up articles and related products	4	17	7	55	74	533
66	Non-metallic mineral manufactures, n.e.s.	100	180	130	143	283	436
67	Iron and steel	1,694	453	21	1,443	935	1,515
68	Non-ferrous metals	1,321	1,258	2,025	923	1,788	1,141
69	Manufactures of metal, n.e.s.	80	81	89	657	963	898
71	Machinery (except electric)	37	84	145	660	1,254	930
72	Electric machinery, apparatus and appliances	106	126	63	511	400	655
73	Transport equipment	18	19	8	573	613	361
81	Sanitary, plumbing, heating and lighting fixtures and fittings	..	..	..	3	9	..
82	Furniture	..	..	..	7	9	3
83	Travel goods, handbags and similar articles	..	..	..	4	2	4
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	8	8	13	162	202	346
85	Footwear, gaiters, and similar articles and parts therefor	..	..	..	1	1	4
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	16	10	35	600	639	740
89	Miscellaneous manufactured articles, n.e.s.	15	46	35	390	313	498
9A	Commodities and transactions of merchandise trade, not elsewhere classified	22	5	12	244	205	116
	Total merchandise	*55,624*	*46,652*	*43,483*	*50,375*	*52,679*	*66,762*
9B	Commodities and transactions not included in merchandise trade	55	203	301	1,315	862	849
	Grand total	**55,679**	**46,855**	**43,784**	**51,690**	**53,541**	**67,611**

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Div No.	*China (mainland)*			*France*			*Germany, Federal Republic of*			*Hong Kong*		
	1960–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1698–69*
00	254	171	34	..	..	..	..	..	..	157	100	4
01	..	..	..	1,074	827	1,038	206	113	287	981	1,187	769
02	..	..	28	..	..	..	454	424	23	2,309	2,571	3,320
03	4	..	..	2,725	2,041	1,583	23	27	41	312	1,205	1,415
04	115,947	120,812	58,379	36	43	94	6,765	2,646	5,993	7,147	7,334	4,766
05	..	13	1	963	1,420	467	11,152	15,036	8,632	1,123	1,307	1,873
06	..	..	..	782	..	1,107	32	36	52	354	1,445	1,285
07	..	..	..	..	..	..	..	..	..	14	8	72
08	1	11	..	..	..	..	103	102	..	81	87	88
09	..	..	..	4	..	4	..	..	..	356	134	96
11	..	..	..	1	..	..	1	1	..	100	100	127
12	..	..	..	..	..	..	..	..	..	..	..	..
21	276	226	385	36,626	26,225	34,049	3,690	3,110	3,900	385	389	527
22	..	..	..	2	2	..	2	26	..	2	..	1
23	..	..	..	..	..	..	4	4	1	25	36	60
24	..	..	..	2	10	..	40	57	72	117	72	51
25	..	..	..	..	..	..	..	..	..	1	..	..
26	7,786	3,840	7,115	53,595	49,468	60,020	40,643	46,582	49,091	8,259	7,160	8,997
27	..	..	..	8	1	..	12	4	1	39	27	47
28	..	..	..	2,351	5,679	6,206	4,146	7,512	18,792	94	64	76
29	..	..	..	96	83	106	1,732	1,751	1,645	146	162	158
32	..	..	..	..	5	..	1	..	..	..	102	..
33	..	1	..	..	..	..	..	..	..	32	297	8
34	..	..	..	..	..	..	..	..	..	51	..	..
41	1	276	41	79	88	244	132	141	69	63	43	51
42	..	..	..	..	..	..	..	..	..	..	..	..
43	11	..	..	..	..	..	61	48	10	39	53	43
51	..	..	..	1	10	8	33	37	9	120	277	206
52	..	..	..	..	..	..	..	..	..	..	..	..
53	10	29	2	5	6	16	28	225	165	207	178	397
54	..	..	..	428	212	374	136	104	99	482	444	591
55	..	..	..	29	82	67	10	26	20	257	326	397
56	..	..	..	..	..	..	..	..	..	..	..	1
57	..	..	..	..	..	..	36	..	..	..	202	253
58	1	..	..	10	5	2	496	1	7	1,196	745	577
59	5	1	4	..	..	37	326	21	391	61	51	78
61	12	..	..	50	15	47	5	56	15	764	856	756
62	..	..	..	26	21	2	10	9	20	24	20	31
63	..	..	..	7	7	2	11	22	37	21	3	9
64	..	..	..	6	..	3	7	4	4	562	619	936
65	2	1	14	14	12	120	60	22	61	320	388	646
66	7	1	..	146	269	289	821	919	899	3,329	2,813	4,003
67	4,111	1,052	41	18	8	9	242	276	152	2,990	4,817	3,077
68	49	..	1,164	82	220	1,923	1,621	870	1,965	2,911	2,821	4,794
69	1	1	..	107	244	317	230	215	556	623	562	617
71	1	12	2	124	179	319	607	1,068	1,309	819	616	1,519
72	1	..	..	215	234	139	247	332	288	620	585	733
73	..	..	..	307	75	356	546	235	420	1,325	716	1,577
81	..	..	..	..	..	..	1	1	1	55	91	81
82	..	..	..	11	..	10	2	..	1	35	48	28
83	..	..	..	..	..	..	..	..	..	25	27	18
84	2	..	..	20	30	40	88	95	204	364	392	843
85	2	..	..	1	1	..	..	2	..	9	5	9
86	1	3	1	131	130	177	226	208	206	382	529	1,243
89	..	3	1	80	69	70	142	157	280	976	1,367	625
9A	..	1	3	684	99	103	285	7,540	8,332	3,634	662	632
	128,484	*126,456*	*67,214*	*100,847*	*87,822*	*109,347*	*75,412*	*90,067*	*104.052*	*44,298*	*44,042*	*48,509*
9B	2	3	..	429	772	3,179	322	1,361	498	20,089	15,834	22,464
	128,486	**126,459**	**67,214**	**101,276**	**88,594**	**112,526**	**75,734**	**91,428**	**104,550**	**64,387**	**59,876**	**70,973**

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Division No.	Description	*India*			*Italy*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	56	72	112	..	..	..
01	Meat and meat preparations	30	31	23	1,523	483	470
02	Dairy products and eggs	887	413	504	20	1	5
03	Fish and fish preparations	..	..	1	204	81	80
04	Cereal grains and cereal preparations	23,357	36,476	5,124	9,742	98	3,599
05	Fruit and vegetables	20	34	33	614	602	495
06	Sugar and sugar preparations and honey	2	2	4	..	..	..
07	Coffee, tea, cocoa, spices and manufactures thereof	..	..	..	..	..	..
08	Feeding-stuff for animals (except unmilled cereals)	..	..	1	..	..	..
09	Miscellaneous preparations chiefly for food	..	2	1	..	4	2
11	Beverages	15	32	23	4	3	2
12	Tobacco and tobacco manufactures	1	..	..	..	..	..
21	Hides, skins and fur skins, undressed	287	260	388	20,211	15,418	14,876
22	Oil-seeds, oil nuts and oil kernels	..	..	..	1	3	1
23	Crude rubber (including synthetic and reclaimed)	..	4	..	..	..	..
24	Wood, timber and cork	50	1	..	10	12	..
25	Pulp and waste paper	..	..	..	..	..	..
26	Textile fibres and their waste	16,765	10,639	16,107	82,816	60,742	70,713
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	123	..	..	56	18	8
28	Metalliferous ores and metal scrap	775	608	1,349	3,738	4,337	7,500
29	Crude animal and vegetable materials, n.e.s.	3	..	..	270	395	190
32	Coal, coke and briquettes	..	..	..	..	..	..
33	Petroleum and petroleum products	..	6	..	..	..	..
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	1,714	1,877	563	392	82	61
42	Fixed vegetable oils and fats	..	..	..	..	..	..
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	..	..	..	..	..	..
51	Chemical elements and compounds	44	1,109	242	65	31	11
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	2	..	..	..
53	Dyeing, tanning and colouring materials	78	50	123	59	54	58
54	Medicinal and pharmaceutical products	108	66	3	72	56	50
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	3	22	45	57	33	80
56	Fertilisers, manufactured	..	..	..	..	..	..
57	Explosives and pyrotechnic products	..	..	..	11	..	12
58	Plastic materials, regenerated cellulose and artificial resins	16	12	29	2	1	2
59	Chemical materials and products, n.e.s.	64	88	109	56	105	189
61	Leather, leather manufactures, n.e.s., and dressed fur skins	18	10	4	3	22	38
62	Rubber manufactures, n.e.s.	..	8	2	1	6	7
63	Wood and cork manufactures (except furniture)	..	1	5	5	2	5
64	Paper, paperboard and manufactures thereof	59	40	22	4	6	7
65	Textile yarn, fabrics, made-up articles and related products	7	9	11	27	54	56
66	Non-metallic mineral manufactures, n.e.s.	32	27	21	9	57	13
67	Iron and steel	573	340	253	2,279	1,696	577
68	Non-ferrous metals	11,390	9,570	5,234	3,043	1,870	5,673
69	Manufactures of metal, n.e.s.	19	19	87	183	199	193
71	Machinery (except electric)	600	891	270	294	194	545
72	Electric machinery, apparatus and appliances	227	75	193	195	59	44
73	Transport equipment	227	1,848	451	29	78	9
81	Sanitary, plumbing, heating and lighting fixtures and fittings	3	..	1	..	..	..
82	Furniture	..	..	..	4	..	1
83	Travel goods, handbags and similar articles	..	..	..	..	5	2
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	1	..	4	53	43	53
85	Footwear, gaiters, and similar articles and parts therefor	11	..	..	..	10	1
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	..	8	14	36	64	102
89	Miscellaneous manufactured articles, n.e.s.	15	8	47	104	88	128
9A	Commodities and transactions of merchandise trade, not elsewhere classified	187	127	211	89	79	142
	Total merchandise	*57,768*	*64,788*	*31,617*	*126,282*	*87,093*	*105,998*
9B	Commodities and transactions not included in merchandise trade	571	678	400	475	671	728
	Grand total	**58,339**	**65,466**	**32,017**	**126,757**	**87,764**	**106,726**

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Div No.	*Japan*			*Malaysia*			*Netherlands*			*New Zealand*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	171	153	99	258	312	209	..	..	..	221	275	340
01	16,445	26,042	20,124	1,073	677	879	300	62	177	20	47	49
02	16,028	7,769	6,648	8,261	4,004	3,008	432	4	..	75	29	28
03	2,099	3,633	4,576	491	359	293	68	109	78	19	23	11
04	38,831	40,561	77,184	18,632	16,875	16,507	11,817	9,776	13,357	6,511	3.106	830
05	805	445	836	1,634	1,186	1,019	1,633	2,726	2,301	4,509	4,132	4,297
06	21,468	23,949	26,951	4.254	3,209	9,057	1	1	3	5,086	6,691	5,952
07	2,907	1,244	1,163	7	5	77	9	..	..	105	84	55
08	2,306	1,553	2,206	698	644	1,003	..	5	..	105	56	37
09	19	35	31	84	94	149	1	1	4	101	178	193
11	42	27	24	182	159	173	2	1	2	271	398	374
12	..	22	..	1	..	..	..	..	35	21	17	19
21	8,358	6,350	8,620	40	59	53	1.321	1,053	1,146	303	19	135
22	425	574	819	..	..	..	..	26	23	57	170	308
23	228	150	127	14	..	1	..	..	..	133	121	77
24	55	173	149	14	..	..	70	57	45	1,803	1,081	924
25	68	56	57	93	156	246	..	..	..	..	2	9
26	274,542	245,984	264,403	13	4	10	6,107	6.573	12,055	2,767	1,668	2,331
27	360	592	1,279	270	234	113	117	379	507	1,051	895	942
28	85,270	143,936	215,201	452	2,555	978	2,786	7.783	11,357	63	86	103
29	859	1,112	1,630	92	90	77	456	540	144	312	213	321
32	68,734	84,266	114,788	56	6	4	..	..	..	252	43	..
33	1,483	2,669	1,936	92	45	43	1	1	128	7,689	12,895	9.969
34	8	..	..	..	..	..	..	..	..	30	33	29
41	1,900	591	2,044	329	418	338	1.038	546	1,628	10	5	2
42	2	66	..	..	..	3	..	1	..	15	26	25
43	51	77	84	40	23	39	44	27	6	75	26	54
51	4,995	7.372	10,657	443	497	505	296	11	64	4,212	4,318	4,047
52	22	..	..	16	21	22	..	..	..	13	11	3
53	14	141	374	127	209	455	112	38	91	1,061	1,300	2,628
54	61	20	18	542	456	556	448	328	274	7,070	7,425	8,851
55	156	154	168	378	553	594	3	5	17	482	355	718
56	5	4	1	4	1	1	..	..	..	44	58	74
57	2	41	..	2	14	..	..	..	..	2,286	1,662	1,091
58	45	56	60	152	160	306	1	7	98	3,349	2,288	2,897
59	6,335	4,459	3,811	144	151	140	29	47	245	1,706	1,643	2,352
61	78	78	74	145	72	81	51	10	119	185	99	157
62	6	21	27	41	45	47	..	1	1	617	415	331
63	49	21	93	16	23	14	2	2	13	518	401	458
64	65	74	127	1,283	1,038	1,549	..	1	38	1,421	1,218	1,338
65	398	634	948	223	237	215	23	6	15	7,659	6,886	8,502
66	5,000	4,470	7,483	134	218	306	9	26	16	1,047	837	1,468
67	5,696	7,379	16,771	1,433	1,004	1,084	1	3	3	34,073	26,848	25,714
68	16,080	20,697	21,824	698	1,258	2.254	8,463	4,145	7,270	13,115	9,838	14,994
69	420	755	1,181	1,116	880	1,069	169	165	236	6,416	5,617	5,664
71	941	842	655	4,300	4,174	3,959	184	250	306	11,121	7,956	9 918
72	171	175	287	1,283	1,119	771	183	103	941	7,465	5,809	6,541
73	497	468	274	981	669	1,392	112	251	277	24,108	21,167	16,589
81	2	7	15	139	144	157	..	..	..	240	91	76
82	7	..	38	50	59	47	2	..	..	11	19	20
83	19	16	10	2	2	3	..	..	..	13	11	5
84	69	95	172	131	155	171	68	75	59	270	336	385
85	..	2	..	61	34	1	2	..	..	56	58	61
86	180	268	311	77	120	176	93	77	27	3,494	3,369	3,604
89	666	781	793	568	357	341	67	140	58	4,656	4,100	4,145
9A	158	167	3,531	743	3,009	1,817	24	115	108	1,965	1,943	2,346
	585,599	*641,226*	*820,684*	*52,313*	*47,793*	*52,314*	*36,548*	*35,479*	*53,271*	*170,280*	*148,397*	*152,389*
9B	913	846	1,417	9,468	8,692	11,356	422	581	488	7,072	7,182	6,457
	586,512	**642,072**	**822,101**	**61,781**	**56,485**	**63,670**	**36,970**	**36,061**	**53,759**	**177,352**	**155,579**	**158,846**

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Division No.	Description	*Pakistan*			*Papua and New Guinea*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	..	..	28	119	151	346
01	Meat and meat preparations	3	8	3	5,493	6,254	5,594
02	Dairy products and eggs	221	109	14	1,284	1,452	1,307
03	Fish and fish preparations	..	..	..	207	376	283
04	Cereal grains and cereal preparations	38,880	1,683	1,262	6,399	7,760	7,658
05	Fruit and vegetables	2	5	3	911	948	846
06	Sugar and sugar preparations and honey	12	8	28	1,016	1,165	1,194
07	Coffee, tea, cocoa, spices and manufactures thereof	..	..	..	578	615	542
08	Feeding-stuff for animals (except unmilled cereals)	..	..	..	383	412	531
09	Miscellaneous preparations chiefly for food	..	..	1	561	583	615
11	Beverages	3	3	3	1,181	1,407	1,450
12	Tobacco and tobacco manufactures	..	..	..	1,361	1,594	1,431
21	Hides, skins and fur skins, undressed	..	..	..	4	3	6
22	Oil-seeds, oil nuts and oil kernels	..	..	..	..	1	5
23	Crude rubber (including synthetic and reclaimed)	..	..	..	1	2	..
24	Wood, timber and cork	602	..	..	88	40	25
25	Pulp and waste paper	..	..	..	4	4	4
26	Textile fibres and their waste	1,291	1,653	1,899	37	37	46
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	17	..	..	152	505	825
28	Metalliferous ores and metal scrap	567	321	7	10	12	2
29	Crude animal and vegetable materials, n.e.s.	1	1	..	108	29	130
32	Coal, coke and briquettes	473	..	..	4	1	19
33	Petroleum and petroleum products	..	..	2	700	910	911
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	3	15	18
41	Animal oils and fats	1,840	15	427	287	308	330
42	Fixed vegetable oils and fats	..	8	..	49	42	43
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	39	..	..	24	22	17
51	Chemical elements and compounds	14	17	37	357	315	316
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	..	10	14	15
53	Dyeing, tanning and colouring materials	13	19	41	776	627	554
54	Medicinal and pharmaceutical products	28	51	51	465	432	476
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	..	..	..	751	741	745
56	Fertilisers, manufactured	..	..	..	13	23	21
57	Explosives and pyrotechnic products	..	..	..	102	195	273
58	Plastic materials, regenerated cellulose and artificial resins	..	2	9	313	537	628
59	Chemical materials and products, n.e.s.	17	6	6	492	457	475
61	Leather, leather manufactures, n.e.s., and dressed fur skins	..	..	..	18	13	19
62	Rubber manufactures, n.e.s.	12	..	..	542	605	603
63	Wood and cork manufactures (except furniture)	..	..	..	442	286	251
64	Paper, paperboard and manufactures thereof	5	..	29	1,463	1,649	1,600
65	Textile yarn, fabrics, made-up articles and related products	3	30	28	453	553	561
66	Non-metallic mineral manufactures, n.e.s.	14	7	7	1,899	2,034	2,227
67	Iron and steel	5,572	958	869	2,702	3,231	3,116
68	Non-ferrous metals	1,931	386	890	622	675	481
69	Manufactures of metal, n.e.s.	19	11	16	6,536	3,949	3,682
71	Machinery (except electric)	719	91	231	8,441	8,575	8,927
72	Electric machinery, apparatus and appliances	102	43	51	3,759	3,859	4,293
73	Transport equipment	226	175	346	9,593	8,371	16,743
81	Sanitary, plumbing, heating and lighting fixtures and fittings	..	..	1	347	465	517
82	Furniture	..	..	1	355	511	640
83	Travel goods, handbags and similar articles	..	..	..	25	26	29
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	3	1	..	818	1,093	796
85	Footwear, gaiters, and similar articles and parts therefor	..	..	..	283	329	311
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	10	3	25	584	961	933
89	Miscellaneous manufactured articles, n.e.s.	6	5	5	1,227	1,526	1,578
9A	Commodities and transactions of merchandise trade, not elsewhere classified	183	24	40	10,767	12,458	17,068
	Total merchandise	*52,830*	*5,645*	*6,360*	*75,116*	*79,161*	*92,055*
9B	Commodities and transactions not included in merchandise trade	313	299	545	11,778	13,272	13,777
	Grand total	**53,143**	**5,944**	**6,905**	**86,894**	**92,433**	**105,832**

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Div. No.	*Philippines*			*Singapore*			*South Africa*			*United Kingdom*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	284	263	210	1,489	1,365	1,072	5	11	34	1	20	..
01	899	1,321	886	3,666	3,405	3,585	20	47	139	52,576	35,982	25,816
02	4,939	5,397	4,534	4,424	3,333	2,968	736	6	7	45,588	41,525	32,834
03	..	..	2	269	489	549	139	405	494	50	172	636
04	3,125	6,213	4,829	13,309	15,650	7,538	16,361	1,058	172	27,148	37,636	52,156
05	610	1,424	1,042	4,738	4,578	5,141	360	195	172	47,482	48,079	41,555
06	4	..	..	551	1,882	3,557	3	1	1	41,687	37,074	39,934
07	3	..	..	16	6	30	25	36	1	17	4	1
08	527	374	547	635	792	1,228	..	..	1	404	271	206
09	3	1	2	63	57	66	49	18	46	242	664	863
11	5	7	7	192	136	191	5	3	9	1,571	1,264	1,283
12	..	..	..	..	1	..	..	..	..	110	1	8
21	132	20	39	475	541	393	1,204	1,218	1,418	3,488	2,343	2,359
22	..	..	..	..	1	..	..	..	..	1	9	373
23	13	6	73	5	18	3	65	..	2	12	20	72
24	..	..	..	4	..	11	692	214	215	684	905	1,133
25	..	..	..	2	8	46	..	..	..	..	..	..
26	..	..	702	..	..	45	1.945	1,202	1,676	85,325	71.919	64,065
27	231	184	132	228	57	68	6	4	8	163	119	88
28	19	11	15	14	66	19	1,167	901	1,085	19,411	25,547	27,572
29	25	30	16	150	141	184	162	146	263	4,390	2,237	2,073
32	128	3	12	26	6	8	..	..	..	..	..	..
33	533	1,465	59	6,007	4,633	5,458	1,477	1,374	2,255	2,273	395	16
34	..	..	..	..	..	..	..	..	..	3	..	..
41	466	143	383	111	160	229	2,308	1,231	1,540	1,427	741	658
42	..	..	..	..	..	..	9	..	..	..	..	..
43	52	39	57	9	24	16	..	20	13	246	235	169
51	863	500	146	173	161	256	165	160	261	751	972	561
52	..	..	..	..	..	..	..	..	..	..	..	..
53	152	252	617	262	239	516	91	19	54	154	150	159
54	182	444	330	234	253	278	436	24	311	306	185	726
55	42	26	30	247	385	359	24	49	116	55	82	70
56	..	..	17	1	1	5	..	..	..	..	..	..
57	3	..	1	49	..	2	..	..	3	35	7	4
58	37	221	344	86	205	189	129	198	104	475	53	80
59	163	144	135	122	162	136	84	140	40	2,461	2,507	3,365
61	75	22	122	250	358	551	94	110	141	3,553	2,944	3,401
62	44	25	50	38	40	42	31	17	66	57	34	36
63	1	1	..	46	67	30	44	84	94	435	410	401
64	255	304	256	875	1,043	1,369	311	118	53	281	106	129
65	187	1,106	1,273	302	244	340	168	303	566	300	208	716
66	392	249	321	222	256	343	11	61	39	799	791	1,185
67	8,906	8,995	15,211	2,156	2,293	2,593	261	1,012	2,325	6,056	6,374	8,273
68	2,922	5,278	4,424	586	491	989	1,045	1,044	1,379	33,753	59,864	73,503
69	946	1,337	1,370	894	926	1,309	905	1,065	1,701	3,166	2,606	3,085
71	2,333	2,881	2,431	2,066	2,524	3,027	3,396	3,938	5,369	3,231	3,442	3,316
72	527	427	527	997	1,180	1,072	1,051	1,050	1,959	1,693	1,303	1,861
73	1,620	978	1,617	1,385	3,268	4,359	4,520	8,923	18,649	1,137	2,693	2,355
81	21	12	17	161	117	126	11	13	15	36	14	17
82	14	7	3	28	72	27	5	2	7	14	28	8
83	..	..	..	6	3	4	2	4	24	1	1	2
84	26	24	45	270	355	329	148	138	284	661	709	1,185
85	..	..	..	..	..	1	1	1	1	1	9	2
86	256	739	787	316	571	844	481	437	675	1,938	2,692	2,634
89	386	278	340	888	787	931	540	652	839	3,392	3,898	3,427
9A	93	143	254	976	634	842	77	133	305	1,297	15,762	12,019
	32,446	*41,294*	*44,214*	*50,022*	*53,987*	*53,278*	*40,770*	*27,786*	*44,932*	*400,337*	*415,004*	*416,392*
9B	355	428	606	6,464	4,151	10,047	481	677	697	4,621	11,310	8,444
	32,801	**41,722**	**44,820**	**56,486**	**58,138**	**63,325**	**41,251**	**28,463**	**45,629**	**404,958**	**426,314**	**424,836**

EXPORTS, BY COUNTRY OF CONSIGNMENT: DIVISIONS OF THE AUSTRALIAN EXPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Division No.	Description	*United States of America* 1966–67	1967–68	1968–69	*U.S.S.R.* 1966–67	1967–68	1968–69
00	Live animals	627	825	869	..	..	..
01	Meat and meat preparations	160,483	174,512	191,245	..	..	..
02	Dairy products and eggs	1,643	833	1,007	..	..	..
03	Fish and fish preparations	17,428	24,247	25,976	..	..	..
04	Cereal grains and cereal preparations	182	469	1,106	..	..	..
05	Fruit and vegetables	425	2,500	2,721	..	..	..
06	Sugar and sugar preparations and honey	21,377	22 868	25,866	..	..	..
07	Coffee, tea, cocoa, spices and manufactures thereof	69	19	14	..	..	..
08	Feeding-stuff for animals (except unmilled cereals)	19	62	190	..	..	..
09	Miscellaneous preparations chiefly for food	390	306	829	..	..	..
11	Beverages	47	80	109	..	..	..
12	Tobacco and tobacco manufactures	16	24	28	..	..	..
21	Hides, skins and fur skins, undressed	1,704	1,405	1,755	..	..	..
22	Oil-seeds, oil nuts and oil kernels	14	2	..	..	..	..
23	Crude rubber (including synthetic and reclaimed)	7	6	328	..	..	..
24	Wood, timber and cork	163	235	188	..	..	..
25	Pulp and waste paper	..	..	2	..	..	..
26	Textile fibres and their waste	50,981	47,463	50,002	20,305	27,367	40,104
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	160	127	508	..	..	..
28	Metalliferous ores and metal scrap	22,572	20,658	30,496	..	..	..
29	Crude animal and vegetable materials, n.e.s.	2,612	2,391	1,965	..	..	..
32	Coal, coke and briquettes	..	1	..	..	..	..
33	Petroleum and petroleum products	3	11	3	..	..	..
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	270	259	258	..	..	..
42	Fixed vegetable oils and fats	..	..	..	..	..	..
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	1	3	3	..	..	..
51	Chemical elements and compounds	6,074	30,370	53,929	..	..	..
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	191	339	224	..	..	..
53	Dyeing, tanning and colouring materials	805	773	784	..	..	..
54	Medicinal and pharmaceutical products	305	361	214	..	..	..
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	185	171	112	..	..	..
56	Fertilisers, manufactured	..	..	3	..	..	..
57	Explosives and pyrotechnic products	..	..	34	..	..	..
58	Plastic materials, regenerated cellulose and artificial resins	21	127	128	..	..	..
59	Chemical materials and products, n.e.s.	3,761	4,399	6,560	..	..	..
61	Leather, leather manufactures, n.e.s., and dressed fur skins	358	241	356	..	..	..
62	Rubber manufactures, n.e.s.	114	3,144	5,215	..	..	..
63	Wood and cork manufactures (except furniture)	249	209	413	..	..	..
64	Paper, paperboard and manufactures thereof	236	286	325	..	..	..
65	Textile yarn, fabrics, made-up articles and related products	236	566	404	..	..	..
66	Non-metallic mineral manufactures, n.e.s.	2,084	2,678	3,239	..	..	..
67	Iron and steel	13,535	7,244	11,450	..	..	..
68	Non-ferrous metals	21,595	20,904	21,988	..	..	..
69	Manufactures of metal, n.e.s.	1,543	1,877	1,941	..	..	..
71	Machinery (except electric)	3,908	4,314	6,848	3	48	141
72	Electric machinery, apparatus and appliances	1,599	1,730	1,596	..	1	4
73	Transport equipment	3,266	2,064	3,304	..	..	3
81	Sanitary, plumbing, heating and lighting fixtures and fittings	41	1	2	..	..	..
82	Furniture	6	31	17	..	..	..
83	Travel goods, handbags and similar articles	6	32	34	..	..	..
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	663	1,113	1,752	..	..	1
85	Footwear, gaiters, and similar articles and parts therefor	7	4	43	..	..	..
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	1,500	1,510	2,484	6	11	15
89	Miscellaneous manufactured articles, n.e.s.	2,131	3,354	4,037	1	..	..
9A	Commodities and transactions of merchandise trade, not elsewhere classified	5,933	4,566	5,407	11	1	..
	Total merchandise	*351,545*	*391,713*	*468,313*	*20,326*	*27,430*	*40,268*
9B	Commodities and transactions not included in merchandise trade	7,740	11,097	11,688	4	16	21
	Grand total	**359,285**	**402,810**	**480,001**	**20,330**	**27,446**	**40,289**

Imports, by country of origin and by description

The following table shows details of imports from principal countries, classified according to divisions of the Australian Import Commodity Classification, for the years 1966–67 to 1968–69.

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69

($'000 f.o.b.)

Division No.	*Description*	*Belgium-Luxembourg*			*Canada*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	..	..	..	..	..	..
01	Meat and meat preparations	..	..	..	80	262	272
02	Dairy products and eggs	4	4	14	1	..	1
03	Fish and fish preparations	10	1	1	2,714	2,577	2,407
04	Cereal grains and cereal preparations	22	20	14	191	247	1,995
05	Fruit and vegetables	15	29	126	339	347	453
06	Sugar and sugar preparations and honey	39	4	11	3	19	24
07	Coffee, tea, cocoa, spices and manufactures thereof	2	3	8	93	4	36
08	Feeding-stuff for animals (except unmilled cereals)	..	..	..	5	..	..
09	Miscellaneous preparations chiefly for food	9	4	4	21	25	38
11	Beverages	..	..	..	44	66	93
12	Tobacco and tobacco manufactures	16	12	7	130	98	83
21	Hides, skins and fur skins, undressed	11	..	7	111	176	106
22	Oil-seeds, oil nuts and oil kernels	..	..	..	1	1,158	650
23	Crude rubber (including synthetic and reclaimed)	114	287	724	1,459	1,362	730
24	Wood, timber and cork	15	11	13	11,923	11,449	16,305
25	Pulp and waste paper	..	..	..	4,537	4,906	6,175
26	Textile fibres and their waste	881	988	797	895	1,718	2,810
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	34	55	48	11,393	16,864	15,139
28	Metalliferous ores and metal scrap	..	..	..	841	1,744	994
29	Crude animal and vegetable materials, n.e.s.	71	71	59	281	141	174
32	Coal, coke and briquettes	..	..	..	..	1	..
33	Petroleum and petroleum products	9	17	10	6	10	32
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	..	..	..	..	..	..
42	Fixed vegetable oils and fats	..	5	2	..	206	456
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	1	9	6	114	110	70
51	Chemical elements and compounds	644	543	617	3,913	3,581	3,153
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	1	..	..	..
53	Dyeing, tanning and colouring materials	28	26	19	148	203	316
54	Medicinal and pharmaceutical products	11	18	38	410	391	184
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	28	21	27	1,133	610	303
56	Fertilisers, manufactured	107	16	51	1,038	411	1,095
57	Explosives and pyrotechnic products	47	29	77	63	51	20
58	Plastic materials, regenerated cellulose and artificial resins	120	194	357	3,572	4,269	3,735
59	Chemical materials and products, n.e.s.	95	313	170	291	365	454
61	Leather, leather manufactures, n.e.s., and dressed fur skins	20	14	56	63	17	21
62	Rubber manufactures, n.e.s.	70	127	80	296	346	367
63	Wood and cork manufactures (except furniture)	23	86	47	393	733	447
64	Paper, paperboard and manufactures thereof	687	712	822	20,927	21,089	21,997
65	Textile yarn, fabrics, made-up articles and related products	2,723	2,770	2,751	3,202	3,663	3,985
66	Non-metallic mineral manufactures, n.e.s.	4,120	4,134	3,974	512	521	735
67	Iron and steel	1,011	823	722	5,216	8,784	5,378
68	Non-ferrous metals	693	398	286	2,563	2,764	5,231
69	Manufactures of metal, n.e.s.	422	751	785	3,986	4,454	4,175
71	Machinery (except electric)	2,387	3,765	3,904	12,712	21,150	26,594
72	Electric machinery, apparatus and appliances	4,176	2,301	1,542	4,398	3,174	5,120
73	Transport equipment	273	215	27	10,409	12,622	10,758
81	Sanitary, plumbing, heating and lighting fixtures and fittings	8	11	9	63	95	168
82	Furniture	1	1	1	53	37	83
83	Travel goods, handbags and similar articles	..	1	..	102	74	80
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	17	17	23	585	573	402
85	Footwear, gaiters, and similar articles and parts therefor	1	1	..	16	24	32
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	535	513	989	1,327	1,088	1,625
89	Miscellaneous manufactured articles, n.e.s.	208	397	295	1,247	1,385	1,598
9A	Commodities and transactions of merchandise trade, not elsewhere classified	515	661	551	3,084	3,941	4,829
	Total merchandise	*20,224*	*20,376*	*20,072*	*116,907*	*139,904*	*151,929*
9B	Commodities and transactions not included in merchandise trade	17	78	68	292	614	1,155
	Grand total	20,241	20,454	20,140	117,199	140,518	153,084

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Division No.	Description	*Ceylon*			*China (mainland)*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	..	..	..	..	..	..
01	Meat and meat preparations	..	..	..	46	9	9
02	Dairy products and eggs	..	..	..	..	..	..
03	Fish and fish preparations	..	..	1	763	277	581
04	Cereal grains and cereal preparations	..	..	..	22	18	25
05	Fruit and vegetables	334	842	796	473	579	687
06	Sugar and sugar preparations and honey	..	..	1	27	7	4
07	Coffee, tea, cocoa, spices and manufactures thereof	14,050	13,238	13,358	808	305	282
08	Feeding-stuff for animals (except unmilled cereals)	..	..	..	..	..	..
09	Miscellaneous preparations chiefly for food	1	..	29	73	29	69
11	Beverages	..	..	1	1	2	..
12	Tobacco and tobacco manufactures	..	..	..	1	..	19
21	Hides, skins and fur skins, undressed	..	..	..	63	51	69
22	Oil-seeds, oil nuts and oil kernels	..	..	..	76	62	87
23	Crude rubber (including synthetic and reclaimed)	51	34	43	..	..	..
24	Wood, timber and cork	1	..	..	..	..	..
25	Pulp and waste paper	..	..	..	..	..	..
26	Textile fibres and their waste	393	328	387	509	420	773
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	63	41	65	183	252	185
28	Metalliferous ores and metal scrap	..	..	..	130	70	58
29	Crude animal and vegetable materials, n.e.s.	88	56	91	1,442	1,142	1,509
32	Coal, coke and briquettes	..	..	..	..	..	..
33	Petroleum and petroleum products	1	..	..	34	58	113
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	..	..	..	..	..	..
42	Fixed vegetable oils and fats	14	2	5	1,275	470	167
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	..	..	2	..	..	..
51	Chemical elements and compounds	..	..	..	677	537	529
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	..	..	..	..
53	Dyeing, tanning and colouring materials	..	..	..	18	17	42
54	Medicinal and pharmaceutical products	..	..	..	23	61	85
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	4	6	14	184	154	209
56	Fertilisers, manufactured	..	..	..	..	..	..
57	Explosives and pyrotechnic products	..	..	..	190	176	126
58	Plastic materials, regenerated cellulose and artificial resins	..	..	..	..	..	..
59	Chemical materials and products, n.e.s.	1	3	..	203	154	158
61	Leather, leather manufactures, n.e.s., and dressed fur skins	16	30	..	52	40	98
62	Rubber manufactures, n.e.s.	..	..	..	23	16	1
63	Wood and cork manufactures (except furniture)	..	..	1	195	143	93
64	Paper, paperboard and manufactures thereof	..	..	..	460	186	144
65	Textile yarn, fabrics, made-up articles and related products	22	17	24	12,523	12,541	16,464
66	Non-metallic mineral manufactures, n.e.s.	114	92	57	1,190	815	963
67	Iron and steel	..	..	..	45	37	33
68	Non-ferrous metals	..	..	..	96	56	82
69	Manufactures of metal, n.e.s.	..	..	..	276	202	294
71	Machinery (except electric)	..	..	..	93	76	135
72	Electric machinery, apparatus and appliances	..	..	..	20	80	97
73	Transport equipment	..	..	..	11	8	15
81	Sanitary, plumbing, heating and lighting fixtures and fittings	..	..	..	24	19	18
82	Furniture	..	..	1	24	43	54
83	Travel goods, handbags and similar articles	..	..	..	61	62	88
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	..	..	..	1,302	1,453	1,859
85	Footwear, gaiters, and similar articles and parts therefor	..	..	..	228	526	779
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	..	..	1	446	492	528
89	Miscellaneous manufactured articles, n.e.s.	1	1	2	1,103	1,286	1,423
9A	Commodities and transactions of merchandise trade, not elsewhere classified	367	322	303	722	654	680
	Total merchandise	*15,521*	*15,012*	*15,179*	*26,116*	*23,584*	*29,634*
9B	Commodities and transactions not included in merchandise trade	14	2	5	32	8	17
	Grand total	**15,535**	**15,014**	**15,184**	**26,148**	**23,592**	**29,651**

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Div. No.	*France*			*Germany, Federal Republic of*			*Hong Kong*			*India*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	..	..	19	..	3	..	..	..	..	..	..	..
01	14	15	12	4	..	..	1	..	..	1	1	2
02	57	129	136	69	111	115	..	..	..	..	..	..
03	14	23	28	445	578	740	897	402	228	886	772	745
04	15	11	8	86	93	93	37	48	47	7	10	8
05	163	154	126	142	207	177	132	144	161	2,264	1,763	2,654
06	7	8	16	10	13	18	21	33	62	..	..	..
07	20	17	28	57	102	105	10	34	15	5,605	5,924	4,638
08	201	194	206	14	19	25	..	1	..	3	..	6
09	25	24	30	44	76	73	102	96	106	1	2	1
11	1,018	1,548	1.610	148	213	236	7	4	6	..	..	..
12	23	29	44	14	15	20	..	..	..	17	45	39
21	34	73	106	..	..	3	..	..	..	41	148	293
22	..	2	..	..	..	..	17	27	38	..	..	37
23	968	619	817	246	140	117	..	6	..	..	..	..
24	32	15	13	26	34	14	96	63	48	7	33	9
25	..	..	..	1	1	..	..	..	..	..	..	..
26	102	64	55	930	857	1,043	150	173	209	703	736	722
27	168	603	589	175	127	124	..	..	..	277	281	297
28	3	..	1	3	2	2	..	..	..	1	197	26
29	117	204	136	193	141	163	316	310	238	490	410	377
32	..	..	..	83	85	90	..	..	..	..	..	..
33	84	136	117	207	256	187	1	1	4	157	174	165
34	3	3	2	..	..	..	..	..	..	..	..	..
41	..	..	3	2	1	..	..	..	..	..	..	..
42	9	13	6	430	952	754	20	21	23	81	150	229
43	..	..	4	36	22	105	..	..	..	3	71	3
51	2,741	2,671	2,878	8,814	11,294	12,266	45	39	39	43	64	136
52	..	10	..	39	7	14	..	..	..	..	..	..
53	217	200	271	3,291	3,936	3,995	1	2	1	15	16	26
54	325	325	255	5,035	5,224	5,802	32	17	17	21	17	27
55	1,015	1,177	1,342	864	845	931	13	25	19	40	62	85
56	134	160	205	1,338	1,455	2,495	..	..	..	..	..	..
57	124	427	40	73	77	75	2	13	..	..	..	..
58	1,627	1,798	1,838	7,726	7,992	6,605	22	17	29	..	..	168
59	688	1,045	702	2,704	3,188	3,098	51	65	79	2	7	42
61	759	1,034	871	470	363	422	56	74	82	237	213	255
62	1,594	2,963	1,724	1,554	2,607	1,972	3	1	4	98	47	5
63	56	89	79	418	537	775	79	107	145	11	52	117
64	457	277	301	1,816	1,961	1,775	136	148	166	67	2	3
65	4,379	5,319	4,080	5,580	7,564	8,260	11,734	13,527	15,112	20,848	20,090	16,491
66	1,775	1,473	1.571	3,747	4,031	4,491	265	280	346	119	207	275
67	659	730	1,162	1.404	3,304	2,635	3	11	17	366	1,012	847
68	446	174	264	1,442	1,261	1,167	..	1	2	..	..	473
69	1,002	1,273	925	5,157	6,345	6,399	450	543	712	104	153	317
71	25,869	16,889	16,749	51,934	54,989	57,986	82	167	276	379	1,084	1,311
72	8,146	8,877	6,160	15,290	19,362	21,364	383	368	584	121	104	213
73	26,194	25,767	9,503	15,167	23,416	28,139	62	114	100	4	10	1
81	26	30	24	251	359	444	372	232	383	13	12	42
82	11	26	24	203	305	230	533	468	483	19	48	101
83	24	46	61	152	191	165	947	1,253	1,508	14	12	12
84	644	774	981	349	1,017	803	5,044	7,082	8,194	5	17	31
85	307	439	420	99	210	329	252	752	1,146	277	218	229
86	986	1,096	1,158	9,207	10,318	11,233	603	774	758	17	22	28
89	1,599	3,503	1,755	6,035	6,936	7,415	7,162	8,252	8,922	108	197	231
9A	8,665	4,701	3,371	3,896	4,953	4,855	3,909	897	674	334	843	396
	93,548	*87,180*	*62,824*	*157,420*	*188,099*	*200,346*	*34,051*	*36,589*	*40,985*	*33,807*	*35,225*	*32,115*
9B	590	865	618	1,119	1,659	1,198	142	140	90	82	71	81
	94,138	**88,045**	**63,442**	**158,539**	**189,758**	**201,544**	**34,193**	**36,729**	**41,075**	**33,889**	**35,296**	**32,196**

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Division No.	*Description*	*Indonesia*			*Italy*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	Live animals	..	..	..	..	6	..
01	Meat and meat preparations	..	..	2	83	76	109
02	Dairy products and eggs	..	..	..	712	602	658
03	Fish and fish preparations	..	..	9	10	16	8
04	Cereal grains and cereal preparations	1	..	..	103	81	91
05	Fruit and vegetables	..	..	..	1,191	1,155	1,076
06	Sugar and sugar preparations and honey	..	..	..	17	29	37
07	Coffee, tea, cocoa, spices and manufactures thereof	2,523	2,725	3,806	44	29	37
08	Feeding-stuff for animals (except unmilled cereals)	..	..	..	170	259	5
09	Miscellaneous preparations chiefly for food	..	..	1	70	81	80
11	Beverages	..	..	..	402	561	701
12	Tobacco and tobacco manufactures	18	43	39	7	12	23
21	Hides, skins and fur skins, undressed	21	3	8	..	..	..
22	Oil-seeds, oil nuts and oil kernels	..	5	..	..	..	..
23	Crude rubber (including synthetic and reclaimed)	..	..	..	..	..	..
24	Wood, timber and cork	11	14	61	1	..	..
25	Pulp and waste paper	..	..	..	..	..	..
26	Textile fibres and their waste	262	13	101	289	181	111
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	..	..	..	341	366	329
28	Metalliferous ores and metal scrap	..	..	..	..	..	1
29	Crude animal and vegetable materials, n.e.s.	45	37	74	56	73	74
32	Coal, coke and briquettes	..	..	..	..	..	..
33	Petroleum and petroleum products	53,505	52,392	55,652	..	..	..
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	..	..	..	2	..	3
42	Fixed vegetable oils and fats	31	..	..	278	302	324
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	..	..	..	..	..	..
51	Chemical elements and compounds	..	..	..	1,125	2,065	1,294
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	66	56	24	1	..	..
53	Dyeing, tanning and colouring materials	..	..	..	140	130	116
54	Medicinal and pharmaceutical products	..	2	4	176	191	193
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	7	11	22	283	252	244
56	Fertilisers, manufactured	..	..	..	553	625	951
57	Explosives and pyrotechnic products	..	..	..	56	27	31
58	Plastic materials, regenerated cellulose and artificial resins	..	..	..	994	1,203	1,321
59	Chemical materials and products, n.e.s.	..	..	..	128	73	77
61	Leather, leather manufactures, n.e.s., and dressed fur skins	..	..	..	126	127	250
62	Rubber manufactures, n.e.s.	..	..	..	1,537	1,320	1,106
63	Wood and cork manufactures (except furniture)	2	1	5	200	359	395
64	Paper, paperboard and manufactures thereof	..	..	..	325	395	772
65	Textile yarn, fabrics, made-up articles and related products	15	11	9	6,574	7,828	7,694
66	Non-metallic mineral manufactures, n.e.s.	..	..	..	1,276	1,814	1,968
67	Iron and steel	..	..	..	797	1,214	4,349
68	Non-ferrous metals	..	..	..	43	33	66
69	Manufactures of metal, n.e.s.	..	3	..	1,020	1,256	1,455
71	Machinery (except electric)	..	..	..	14,786	17,481	18,641
72	Electric machinery, apparatus and appliances	..	..	..	3,713	6,017	6,518
73	Transport equipment	..	..	..	5,172	13,413	13,452
81	Sanitary, plumbing, heating and lighting fixtures and fittings	..	..	..	220	259	351
82	Furniture	..	..	..	189	296	496
83	Travel goods, handbags and similar articles	..	..	..	197	344	343
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	..	..	..	1,591	1,686	1,509
85	Footwear, gaiters, and similar articles and parts therefor	..	..	..	2,943	3,481	3,638
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	1	..	2	1,469	1,933	1,954
89	Miscellaneous manufactured articles, n.e.s.	1	9	2	2,552	3,386	3,982
9A	Commodities and transactions of merchandise trade, not elsewhere classified	105	99	123	905	1,253	1,698
	Total merchandise	*56,616*	*55,427*	*59,946*	*52,870*	*72,290*	*78,529*
9B	Commodities and transactions not included in merchandise trade	13	3	10	308	426	433
	Grand total	**56,629**	**55,430**	**59,956**	**53,178**	**72,716**	**78,962**

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Div No.	*Japan*			*Malaysia*			*Netherlands*			*New Zealand*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	..	..	..	..	..	..	..	..	..	1,527	1,991	1,919
01	6	9	6	..	..	..	7	5	8	92	376	346
02	..	..	..	..	..	..	420	488	449	313	318	656
03	7,361	7,677	7,974	167	135	498	344	279	365	1,528	1,578	2,236
04	91	105	105	..	1	..	253	302	244	387	914	1,665
05	215	303	208	91	79	80	498	648	593	2,206	3,030	3,854
06	27	58	102	..	..	..	128	177	152	602	796	737
07	1,025	1,412	2,261	1,214	893	771	848	541	804	30	88	86
08	..	159	41	..	..	..	5	8	..	132	288	172
09	95	70	84	4	3	2	159	268	318	60	26	115
11	14	18	17	..	..	..	28	59	50	6	25	38
12	12	1	2	..	..	..	2,758	3,237	2,819	..	..	..
21	13	30	37	2	1	..	11	21	28	380	440	750
22	..	..	1	..	1	..	42	27	43	48	149	45
23	2,270	1.476	1,663	13,557	11,794	14,679	617	273	297	..	..	..
24	100	116	92	7,939	12,558	11,063	..	..	1	2,310	3,323	5,405
25	199	106	..	..	..	..	..	..	..	6,687	5,671	5,881
26	2,729	2,868	3,124	..	2	..	924	928	113	2,507	2,105	3,460
27	1,072	1,588	1,513	..	..	10	7	152	324	31	36	41
28	26	11	..	29	2	37	1	59	2	816	1,802	1,538
29	205	458	207	131	102	136	210	176	180	1 281	2,143	1,418
32	..	..	..	..	..	..	6	3	..	..	..	..
33	304	693	657	1,019	1,012	356	62	163	82	150	1	189
34	..	..	1	..	..	..	..	..	..	..	..	..
41	714	176	390	..	..	..	..	1	15	222	334	184
42	1,753	617	762	662	550	664	121	97	279	1	1	20
43	13	105	15	..	..	..	358	461	587	8	10	..
51	14,539	13,033	18,238	..	4	18	2,562	3,472	3,038	562	719	920
52	399	231	..	..	..	..	8	9	13	..	..	1
53	448	543	526	..	..	..	230	309	340	39	53	72
54	280	316	367	6	1	..	961	785	736	427	497	780
55	65	56	156	27	35	23	163	184	262	123	72	156
56	1,499	3,656	1,293	..	..	..	9	771	34	17	14	13
57	96	135	166	79	..	..	..	..	..	..	1	..
58	7,291	10,667	12,061	..	..	2	3,810	3,124	3,671	35	118	130
59	602	906	1,094	5	4	6	787	696	816	112	77	100
61	694	448	382	..	..	..	8	8	5	112	182	299
62	3,793	4,579	5,337	222	289	247	60	303	523	293	836	704
63	2,212	2,375	2,094	35	215	357	67	98	164	31	186	445
64	4,756	6,116	7,102	..	..	10	945	1,157	1,198	16,043	18,773	17,119
65	70,347	75,539	79,151	107	191	236	2,887	3,348	3,992	948	3,629	6,426
66	9,260	10,066	13,398	4	5	..	629	468	681	258	302	986
67	24,448	29,946	45,628	5	..	..	59	59	36	62	15	40
68	865	1,278	1,201	2,227	391	415	238	278	270	72	181	199
69	10,001	10,376	11,238	9	3	17	506	683	465	164	416	1,019
71	26,899	30,141	36,619	13	4	2	4,059	5,365	6,362	1,605	1,947	2,720
72	17,059	18,472	25,036	8	1	14	6,383	6,752	7,787	1,639	2,167	3,484
73	47,149	62,933	84,585	27	85	1	9,462	7,073	6,612	344	711	1,116
81	205	348	356	..	..	..	56	66	74	26	49	321
82	557	780	1,049	3	1	2	17	16	13	49	131	362
83	1,712	1,698	1,630	..	..	..	3	6	5	160	298	369
84	2,480	2,492	2,342	1	2	..	27	40	13	109	270	956
85	556	900	937	5	6	6	2	3	8	104	129	239
86	8,297	10,426	12,968	6	9	8	1,184	1,234	1,133	74	141	227
89	15,304	19,007	19,801	32	74	69	2,077	2,410	2,102	980	1,295	1,739
9A	5,632	7,311	8,866	164	115	124	855	1,048	1,647	894	1,026	1,377
	295,688	*342,831*	*412,886*	*27,801*	*28,568*	*29,853*	*45,862*	*48,140*	*49,752*	*46,607*	*59,679*	*73,074*
9B	356	479	1,790	184	274	169	1,194	197	332	667	1,969	1,660
	296,044	**343,310**	**414,676**	**27,985**	**28,842**	**30,022**	**47,056**	**48,337**	**50,084**	**47,274**	**61,648**	**74,734**

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

($'000 f.o.b.)

Division No.	Description	Papua and New Guinea			South Africa		
		1966–67	1967–68	1968–69	1966–67	1967–68	1968–69
00	Live animals	..	..	..	..	..	..
01	Meat and meat preparations	..	..	..	..	..	..
02	Dairy products and eggs	..	..	..	..	..	..
03	Fish and fish preparations	24	53	27	2,091	2,791	3,733
04	Cereal grains and cereal preparations	..	..	..	4	..	..
05	Fruit and vegetables	142	237	932	60	25	71
06	Sugar and sugar preparations and honey	..	..	..	..	..	..
07	Coffee, tea, cocoa, spices and manufactures thereof	6,110	6,137	6,816	2	11	2
08	Feeding-stuff for animals (except unmilled cereals)	..	..	..	2,170	2,329	2,039
09	Miscellaneous preparations chiefly for food	..	..	..	2	..	..
11	Beverages	..	..	..	3	8	7
12	Tobacco and tobacco manufactures	..	..	..	2,991	2,601	1,875
21	Hides, skins and fur skins, undressed	503	286	349	2	3	3
22	Oil-seeds, oil nuts and oil kernels	4,321	4,961	4,381	25	21	99
23	Crude rubber (including synthetic and reclaimed)	2,516	1,966	2,397	..	..	62
24	Wood, timber and cork	916	1,017	1,326	..	..	..
25	Pulp and waste paper	..	..	..	..	..	..
26	Textile fibres and their waste	..	..	..	70	65	114
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	..	..	..	2,901	3,333	3,910
28	Metalliferous ores and metal scrap	96	140	181	120	108	36
29	Crude animal and vegetable materials, n.e.s.	24	31	22	188	158	178
32	Coal, coke and briquettes	..	..	..	71	72	158
33	Petroleum and petroleum products	..	..	..	30	28	18
34	Petroleum gases and other gaseous hydrocarbons	..	..	..	..	..	..
41	Animal oils and fats	..	..	..	60	59	39
42	Fixed vegetable oils and fats	110	208	161	140	410	25
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	..	..	..	3	..	..
51	Chemical elements and compounds	..	..	..	672	565	559
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	..	..	..	..	..	..
53	Dyeing, tanning and colouring materials	..	..	..	485	392	468
54	Medicinal and pharmaceutical products	..	..	..	9	4	16
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	..	..	..	10	4	37
56	Fertilisers, manufactured	..	..	..	..	..	7
57	Explosives and pyrotechnic products	..	..	..	3	..	..
58	Plastic materials, regenerated cellulose and artificial resins	..	..	..	12	3	2
59	Chemical materials and products, n.e.s.	..	..	6	3	17	19
61	Leather, leather manufactures, n.e.s., and dressed fur skins	..	..	..	2	..	8
62	Rubber manufactures, n.e.s.	..	..	1	..	81	44
63	Wood and cork manufactures (except furniture)	1,904	2,282	2,246	3	42	64
64	Paper, paperboard and manufactures thereof	..	..	..	86	90	61
65	Textile yarn, fabrics, made-up articles and related products	1	..	1	1	5	2
66	Non-metallic mineral manufactures, n.e.s.	..	19	325	1,036	1,198	1,371
67	Iron and steel	..	..	..	1,893	2,555	2,592
68	Non-ferrous metals	..	19	22	89	137	175
69	Manufactures of metal, n.e.s.	2	23	1	369	403	500
71	Machinery (except electric)	3	4	2	484	959	769
72	Electric machinery, apparatus and appliances	3	6	3	162	196	261
73	Transport equipment	4	9	8,008	74	31	7
81	Sanitary, plumbing, heating and lighting fixtures and fittings	..	..	..	10	7	9
82	Furniture	..	..	..	..	..	1
83	Travel goods, handbags and similar articles	..	..	..	5	6	2
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	..	..	..	3	12	3
85	Footwear, gaiters, and similar articles and parts therefor	..	..	..	..	..	..
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	8	29	222	59	24	32
89	Miscellaneous manufactured articles, n.e.s.	33	31	34	78	79	71
9A	Commodities and transactions of merchandise trade not, elsewhere classified	262	257	352	527	580	570
	Total merchandise	*16,980*	*17,716*	*27,816*	*17,008*	*19,411*	*20,019*
9B	Commodities and transactions not included in merchandise trade	1,192	1,451	1,314	82	95	110
	Grand total	**18,172**	**19,167**	**29,130**	**17,090**	**19,506**	**20,129**

IMPORTS, BY COUNTRY OF ORIGIN: DIVISIONS OF THE AUSTRALIAN IMPORT COMMODITY CLASSIFICATION, 1966–67 TO 1968–69—*continued*

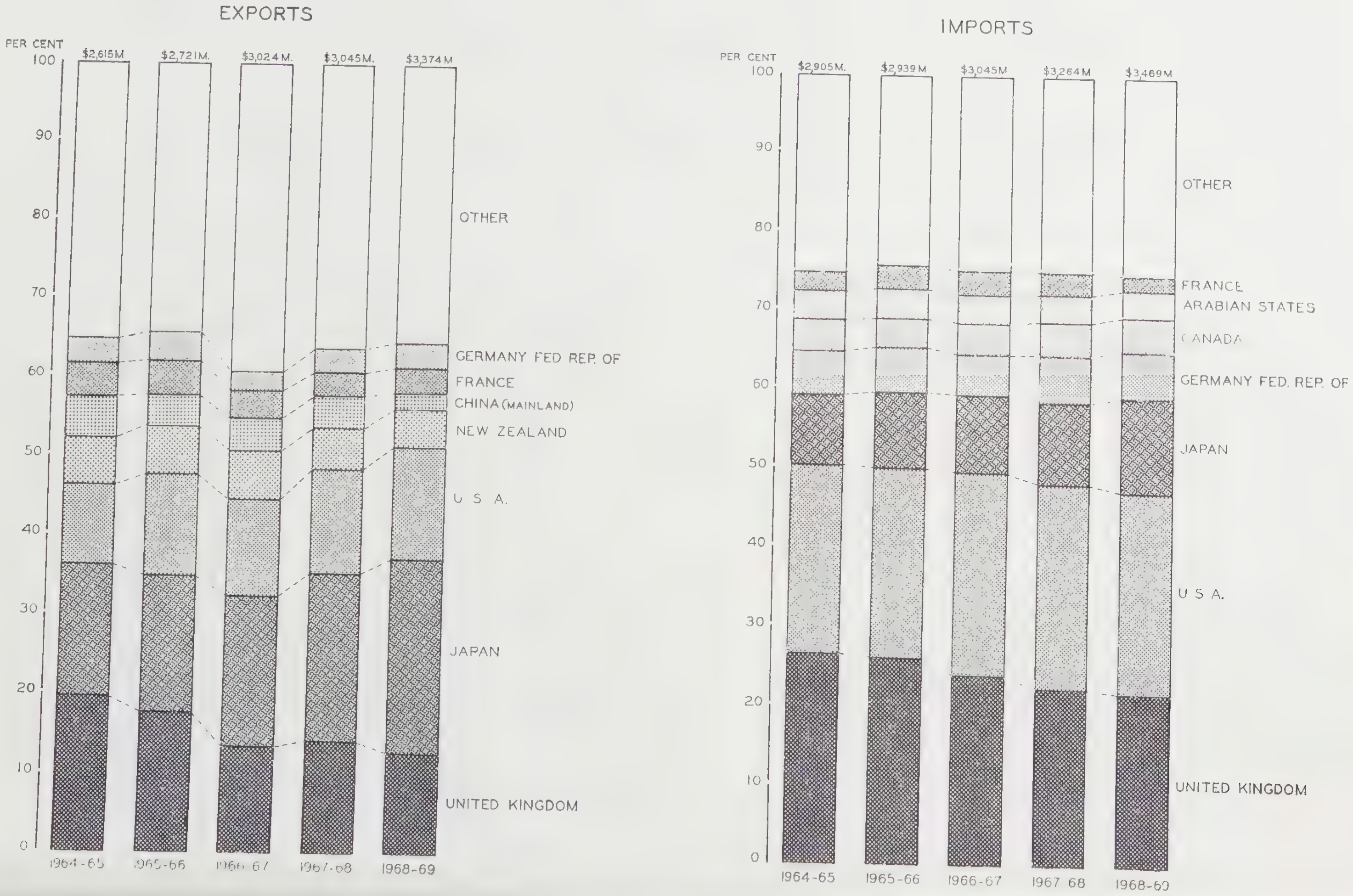
($'000 f.o.b.)

Div. No.	*Sweden*			*Switzerland*			*United Kingdom*			*United States of America*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
00	. .	. .	. .	. .	. .	. .	927	621	442	87	97	253
01	. .	. .	. .	6	7	7	83	153	214	42	27	17
02	32	97	133	127	152	166	27	38	30	61	96	66
03	57	39	50	. .	. .	. .	6,280	4,681	5,141	1,147	752	591
04	169	297	235	10	5	4	866	870	1,055	475	532	485
05	20	7	19	18	17	28	1,101	1,241	774	2,779	3 000	3,068
06	. .	. .	1	. .	. .	4	613	623	675	56	66	53
07	. .	. .	. .	48	36	34	405	624	1,028	608	509	523
08	. .	. .	. .	. .	. .	6	2,720	66	41	2,151	3,586	2,507
09	5	9	14	26	54	48	503	626	1,063	611	534	595
11	1	2	1	4	10	12	7,863	8,913	10,105	151	270	382
12	. .	. .	. .	10	13	18	1,215	1,215	1,335	18,287	12,767	18 449
21	29	20	14	. .	. .	. .	87	49	60	206	265	388
22	. .	. .	. .	. .	. .	. .	64	123	151	252	2,133	663
23	. .	. .	. .	. .	. .	. .	748	938	980	5,111	5,461	5,285
24	109	53	63	. .	. .	. .	87	82	51	8,847	9,176	9,746
25	5,332	4,001	4,891	23	. .	. .	4	. .	2	2,724	3,867	3,386
26	755	503	1,087	13	2	. .	6,239	4,472	4,908	5,655	6,362	3,809
27	42	41	42	7	1	. .	1,384	1,360	1,553	14,251	13,042	10,045
28	. .	. .	1	. .	. .	. .	180	55	50	315	517	958
29	1	. .	. .	68	62	40	1,111	883	937	2,613	2,690	2,957
32	. .	. .	. .	. .	. .	. .	1	3	. .	201	135	249
33	1	1	5	12	18	12	1,460	1,581	1,584	6,741	6,125	7,000
34	. .	. .	. .	. .	. .	. .	1	. .	. .	21	38	28
41	. .	. .	. .	. .	. .	. .	93	80	65	14	21	11
42	203	559	514	. .	. .	. .	762	511	486	2,060	1,871	780
43	13	13	28	. .	. .	. .	329	344	383	419	375	428
51	512	601	567	3,052	3,690	3,810	22,832	20,994	20,939	36,233	33,150	36,218
52	. .	. .	. .	2	4	3	59	71	52	2,137	1,916	1,642
53	10	3	4	3,079	2,864	3,043	7,503	6,508	6,808	2,430	2,559	2,866
54	155	232	333	5,959	8,383	8,183	15,013	14,541	15,435	6,379	6,368	6,291
55	11	9	17	525	681	674	5,092	4,163	4,675	3,953	3,917	4,491
56	. .	. .	1	. .	. .	. .	899	432	125	5,113	4,120	4,928
57	43	1	4	. .	. .	. .	1,696	2,754	1,214	2,543	3,269	2,772
58	90	110	111	423	413	568	26,448	27,719	26,762	16,440	18,201	22,691
59	195	207	467	255	187	268	16,969	14,032	19,335	14,949	19,945	19,770
61	135	185	124	17	8	9	1,909	1,798	2,087	742	972	723
62	192	214	308	25	58	66	11,002	12,834	11,567	7,382	12,167	11,729
63	359	386	502	18	40	28	792	1,001	1,322	341	509	431
64	6,098	6,181	6,725	169	196	194	11,023	9,828	11,674	13,846	14,256	18.136
65	305	364	460	3,900	4,391	4,566	42,537	38,079	42,524	23,663	23,281	20,003
66	511	617	621	218	177	169	17,800	16,215	17,763	8,040	9,854	9,240
67	3,251	4,775	3,908	76	373	14	16,666	20,176	16,119	6,968	8,471	10,301
68	444	135	169	133	139	80	7,398	7,489	7,695	2,819	2,785	5,402
69	3,833	3,106	2,870	546	529	599	24,831	25,011	25,652	15,273	18,587	20,091
71	13,042	13,318	13,074	9,791	10,206	8,803	181,700	178,336	174,578	201,804	224,313	226,689
72	12,201	8,761	7,881	3,998	4,191	4,786	66,122	64,235	66,308	48,303	60,832	55,484
73	680	1,005	3,090	258	662	1,243	100,432	122,648	121,576	179,452	183,736	214,411
81	138	93	144	5	18	9	1,637	1,690	1,555	312	451	420
82	44	60	62	3	10	6	592	650	951	293	379	445
83	8	16	21	6	5	11	415	388	388	229	200	136
84	14	12	12	382	407	353	5,636	5,609	6,146	1,115	1,332	2,717
85	2	3	5	135	152	185	1,044	1,159	1,635	36	68	52
86	415	368	458	6,175	7,272	7,473	24,655	24,633	27,969	27,525	29,810	29,985
89	292	354	321	1,152	1,468	1,297	42,090	41,425	50,577	32,361	32,565	34,132
9A	885	837	1,109	723	650	656	28,455	23,788	24,981	34,429	36,116	36,473
	50,636	*47,595*	*50,467*	*41,398*	*47,554*	*47,474*	*718,396*	*718,355*	*741,526*	*770,995*	*828,443*	*871,393*
9B	214	2,583	121	379	224	352	5,415	4,655	5,629	10,268	12,442	11,675
	50,850	**50,178**	**50,588**	**41,777**	**47,778**	**47,826**	**723,811**	**723,010**	**747,155**	**781,263**	**840,886**	**883,068**

VALUE OF EXPORTS AND IMPORTS: AUSTRALIA

PROPORTION BY COUNTRY

1964-65 TO 1968-69



EXPORTS

IMPORTS

PLATE 26

Trade with major groups of countries

Australia's trade with major groups of countries is shown in the following table. Particulars of Australia's balance of payments with countries in these groups are shown on page 335.

TRADE OF AUSTRALIA, BY MAJOR GROUPS OF COUNTRIES 1966-67 TO 1968-69

($'000 f.o.b.)

	1966–67	*1967–68*	*1968–69*
STERLING AREA			
Exports to—			
United Kingdom	404,958	426,314	424,836
Other countries	727,208	648,022	659,536
Total	1,132,166	1,074,336	1,084,372
Imports from—			
United Kingdom	723,811	723,010	747,155
Other countries	371,647	397,555	450,693
Total	1,095,458	1,120,565	1,197,848
Excess of exports (+) or imports (−)	+36,708	−46,229	−113,476
NON-STERLING COUNTRIES—NORTH AMERICA			
Exports to—			
Canada	51,690	53,541	67,611
United States of America(*a*)	368,909	413,974	493,238
Total	420,599	467,515	560,849
Imports from—			
Canada	117,199	140,518	153,084
United States of America(*a*)	781,566	841,233	883,774
Total	898,765	981,751	1,036,858
Excess of exports (+) or imports (−)	−478,166	−514,236	−476,009
OTHER NON-STERLING COUNTRIES			
Exports to—			
European Economic Community	418,804	373,194	454,908
European Free Trade Association(*b*)	39,015	32,054	33,755
Other countries—			
Japan	586,512	642,072	822,101
Eastern Europe, China (mainland), etc.	189,389	192,019	148,544
Other	237,412	263,484	269,736
Total	1,471,132	1,502,823	1,729,044
Imports from—			
European Economic Community	379,492	426,681	419,249
European Free Trade Association(*b*)	137,113	145,567	147,269
Other countries—			
Japan	296,044	343,310	414,676
Eastern Europe, China (mainland), etc.	41,579	40,753	49,875
Other	196,890	205,846	202,730
Total	1,051,118	1,162,157	1,233,799
Excess of exports (+) or imports (−)	+420,014	+340,666	+495,245
ALL GROUPS			
Total exports	3,023,897	3,044,675	3,374,263
Total imports	3,045,341	3,264,473	3,468,505
Excess of exports (+) or imports (−)	−21,444	−219,798	−94,242

(*a*) Includes United States of America, Territories and Dependencies. (*b*) Other than United Kingdom.

Countries constituting the several groups are listed below.

STERLING AREA—
- Antarctica
- Bahama Is
- Bahrain
- Barbados
- Bermuda
- Botswana
- British Indian Ocean Territory
- Brunei
- Ceylon
- Christmas Is
- Cocos Is
- Cook Is
- Cyprus
- Falkland Is
- Fiji
- Gambia
- Ghana
- Gibraltar
- Gilbert and Ellice Is
- Guyana
- Honduras (British)
- Hong Kong
- Iceland
- India
- Ireland
- Jamaica
- Jordan
- Kuwait
- Leeward Is
- Lesotho
- Libya
- Malawi
- Malaysia
- Maldive Is
- Malta
- Mauritius
- Muscat and Oman
- Nauru
- New Zealand
- Niue and Tokelau Is
- Norfolk Is.
- Pakistan
- Papua and New Guinea
- Qatar
- Ross Dependency
- St Helena and Ascension
- Seychelles
- Sierra Leone
- Singapore
- Solomon Is
- South Africa
- South West Africa
- South Yemen
- Swaziland
- Tonga
- Trinidad and Tobago
- Trucial States
- United Kingdom
- Virgin Is (British)
- Western Samoa
- Windward Is
- Zambia

NON-STERLING COUNTRIES—

North America—
- Canada
- United States of America and Dependencies (Guam, Okinawa, Puerto Rico, Samoa, Virgin Is and other U.S. Pacific Is)

European Economic Community—
- Antilles (Netherlands)
- Belgium-Luxembourg
- Burundi
- Cameroon
- Central African Republic
- Chad
- Congo (Brazzaville)
- Congo (Kinshasa)
- Dahomey
- France
- Gabon
- Germany, Federal Republic of
- Greece
- Guiana (French)
- Italy
- Ivory Coast
- Kenya
- Malagasy, Republic of
- Mali
- Mauritania
- Morocco
- Netherlands
- New Caledonia
- Niger
- Nigeria
- Polynesia (French)
- Reunion and Southern Is
- Rwanda
- St Pierre and Miquelon
- Senegal
- Somalia
- Somaliland (French)
- Surinam
- Tanzania
- Togo
- Tunisia
- Turkey
- Uganda
- Upper Volta
- Wallis and Futuna Is
- West Indies (French)

European Free Trade Association(a)—
- Angola
- Austria
- Cape Verde Is
- Denmark
- Finland
- Guinea (Portuguese)
- Macao
- Mozambique
- Norway
- Portugal
- Sweden
- Switzerland
- Timor

Eastern Europe, China (mainland), etc.—
- Albania
- Bulgaria
- China (mainland)
- Czechoslovakia
- Germany (East)
- Hungary
- Korea (North)
- Mongolia
- Poland
- Romania
- U.S.S.R.
- Vietnam (North)

Other—
- Afghanistan
- Algeria
- Argentina
- Bhutan
- Bolivia
- Brazil
- Burma
- Cambodia
- Chile
- China, Republic of (Taiwan)
- Colombia
- Costa Rica
- Cuba
- Dominican Republic
- Ecuador
- El Salvador
- Ethiopia
- Guatemala
- Guinea
- Haiti
- Honduras (not British)
- Indonesia
- Iran
- Iraq
- Israel
- Japan
- Korea, Republic of
- Laos
- Lebanon
- Liberia
- Mexico
- Nepal
- New Hebrides
- Nicaragua
- Panama
- Paraguay
- Peru
- Philippines
- Rhodesia
- Saudi Arabia
- Spain
- Spanish Equatorial (West) Africa
- Sudan
- Syria
- Thailand
- United Arab Republic
- Uruguay
- Venezuela
- Vietnam, Republic of
- Yemen
- Yugoslavia

(a) Other than United Kingdom.

Trade with the United Kingdom

Since 1908, permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in Britain about Australian trade affairs. Particulars of British trade representation in Australia are given in the chapter International Relations. From 8 August 1907 the Commonwealth Customs Tariffs have provided preferential rates of customs duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on pages 284–5 in this chapter. For details of exports to and imports from the United Kingdom, by divisions of the Australian Export and Import Commodity Classifications, *see* tables on pages 309 and 317 respectively.

Trade with eastern countries

Details of exports to and imports from eastern countries are shown in the following table. Further information for principal eastern countries, by divisions of the Australian Export and Import Commodity Classifications, is shown in the tables on pages 304–10 and 311–17 respectively.

TRADE OF AUSTRALIA WITH EASTERN COUNTRIES, BY COUNTRY OF CONSIGNMENT OR ORIGIN, 1966-67 TO 1968-69

($'000 f.o.b.)

Country	Exports			Imports		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Brunei	252	9,351	799	11,484	15,410	18,562
Burma	4,491	2,797	2,928	258	187	125
Cambodia	436	254	115	23	29	36
Ceylon	15,787	16,173	15,083	15,535	15,014	15,184
China (mainland)	128,486	126,459	67,214	26,148	23,592	29,651
China, Republic of (Taiwan)	18,842	20,388	26,415	4,801	8,590	11,787
Hong Kong	64,387	59,876	70,973	34,193	36,729	41,075
India	58,339	65,466	32,017	33,889	35,296	32,196
Indonesia	6,938	13,870	20,665	56,629	55,430	59,956
Japan	586,512	642,072	822,101	296,044	343,310	414,676
Korea (North)	6,378	1,928	5,599	. .	2	. .
Korea, Republic of	8,088	8,417	13,469	1,428	1,556	2,493
Laos	70	149	114	. .	. .	1
Macao	193	33	39	49	38	61
Malaysia	61,781	56,485	63,670	27,985	28,842	30,022
Nepal	77	96	26	1	14	21
Pakistan	53,143	5,944	6,905	17,999	14,562	17,068
Philippines	32,801	41,722	44,820	2,793	3,555	3,136
Singapore	56,486	58,138	63,325	8,708	8,564	12,496
Thailand	23,722	23,494	23,872	1,666	1,969	1,932
Timor	217	262	1,001	. .	4	. .
Vietnam (North)	. .	. .	. .	. .	. .	. .
Vietnam, Republic of	11,837	23,198	31,063	101	20	81
Total	**1,139,263**	**1,176,572**	**1,312,213**	**539,734**	**592,713**	**690,559**

Ships' and aircraft stores

Ships' and aircraft stores loaded on overseas ships and aircraft are excluded from exports. The value of these stores is shown in the table below for each of the years 1966–67 to 1968–69.

STORES LOADED ON BOARD OVERSEAS VESSELS AND AIRCRAFT: AUSTRALIA, 1966-67 TO 1968-69

($'000 f.o.b.)

Stores	*1966–67*	*1967–68*	*1968–69*
Cigarettes, cigars and tobacco	943	835	778
Fuel, lubricating oil and lubricants	22,663	33,805	32,513
Foodstuffs for human consumption—			
Meats	3,691	3,096	2,578
Sugar	45	72	48
Milk and cream, preserved	91	95	68
Butter	184	116	163
Cheese	95	88	79
Eggs in shell	520	414	361
Seafoods	617	661	710
Prepared grains	225	224	211
Vegetables	780	838	818
Fruit	426	432	480
Tea	26	18	12
Other	579	955	678
Fodder	84	64	71
Alcoholic beverages	1,682	1,636	1,684
Coal	11	6	9
Other ships' stores	5,510	5,438	5,580
Total	**38,172**	**48,793**	**46,841**

Overseas trade at customs ports

The following table shows the value of exports and imports at customs ports of Australia during the year 1968–69, and the totals for each State and Territory.

OVERSEAS TRADE: CUSTOMS PORTS, AUSTRALIA, 1968-69
($'000 f.o.b.)

Port or customs station	*Exports*	*Imports*
New South Wales—		
Sydney	652,465	1,239,754
Kingsford-Smith airport	103,197	128,108
Coffs Harbour (including Ballina)	679	. .
Botany Bay (Kurnell)	4,689	51,708
Newcastle (including Port Stephens)	167,444	37,657
Port Kembla	81,935	23,207
Richmond	79	4,680
Parcels post, Sydney	(*a*)	15,443
Total, New South Wales	*1,010,488*	*1,500,559*
Victoria—		
Melbourne	631,483	1,016,593
Melbourne airport	2,241	78,146
Geelong	52,722	56,090
Portland	19,878	4,644
Westernport	1,255	15,542
Parcels post, Melbourne	(*a*)	11,732
Total, Victoria	*707,579*	*1,182,747*
Queensland—		
Brisbane	309,359	247,852
Brisbane airport	4,985	21,681
Bowen	7,828	. .
Bundaberg	16,580	34
Cairns (including airport)	18,529	2,336
Gladstone	96,162	4,135
Innisfail	23,108	. .
Mackay	50,548	972
Maryborough (including Urongan)	12	104
Rockhampton (including airport and Port Alma)	38,166	942
Thursday Island	997	221
Townsville (including airport)	111,185	4,910
Weipa	(*a*)	4,068
Parcels post, Brisbane	(*a*)	1,344
Total, Queensland	*677,459*	*288,599*
South Australia—		
Port Adelaide (including Stenhouse Bay)	170,669	183,062
Adelaide city	. .	16
Adelaide airport	3,227	18,530
Port Stanvac	224	22,162
Cape Thevenard	4,606	. .
Edithburgh	7	. .
Port Lincoln	12,274	1,776
South Australia—*continued*		
Port Pirie (including Port Germein)	72,612	418
Port Wallaroo	11,670	488
Whyalla	25,644	3,018
Parcels post, Adelaide	(*a*)	2,486
Total, South Australia	*300,934*	*231,956*
Western Australia—		
Fremantle	299,135	137,188
Perth	432	3,235
Perth airport	1,996	3,223
Kwinana	7,535	30,730
Albany	27,013	2,926
Broome	5,891	2,940
Bunbury	17,303	3,025
Carnarvon	550	. .
Derby	57	181
Esperance	14,358	1,415
Exmouth (North West Cape)	283	634
Geraldton	25,944	3,276
King Bay (Dampier)	95,374	7,313
Port Hedland	46,370	5,753
Wyndham	3,441	. .
Yampi Sound (Cockatoo Island)	683	. .
Parcels post, Perth	(*a*)	1,695
Total, Western Australia	*546,366*	*203,534*
Tasmania—		
Hobart (including airport)	42,670	20,144
Burnie (including airport)	22,216	7,314
Devonport (including airport and Ulverstone)	6,406	3,043
Launceston (including airport and Beauty Point)	16,290	7,008
Port Latta	14,479	. .
Parcels post	(*b*)	(*b*)
Total, Tasmania	*102,061*	*37,509*
Northern Territory—		
Darwin	20,582	21,800
Groote Eylandt	8,352	(*a*)
Total, Northern Territory	*28,934*	*21,800*
Australian Capital Territory—		
Canberra	442	1,801
Total	**3,374,263**	**3,468,505**

(*a*) Included with main port. (*b*) Included with respective port.

Movement of bullion and specie

The following table shows the values of gold and silver bullion and specie, and of bronze specie, exported from and imported into Australia during each of the years 1966–67 to 1968–69.

EXPORTS AND IMPORTS OF BULLION AND SPECIE: AUSTRALIA, 1966-67 TO 1968-69

($'000 f.o.b.)

	Exports			*Imports*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Gold—Bullion(*a*)	18,080	15,299	22,706	4,162	4,324	3,964
Specie	16	30	..	52	53	32
Total gold	*18,096*	*15,328*	*22,706*	*4,213*	*4,377*	*3,996*
Silver—Bullion(*a*)	3,560	22,528	22,677	142	152	212
Specie	405	949	50	148	162	666
Total silver	*3,965*	*23,477*	*22,727*	*289*	*314*	*878*
Other (including bronze and cupro-nickel)—Specie	76	764	759	32	1,537	1,008
Total—						
Australian Produce	22,119	39,554	46,175	..	..	..
Re-exports	18	16	17	..	..	..
Grand total	**22,137**	**39,570**	**46,192**	**4,534**	**6,228**	**5,882**

(*a*) Includes in matte.

The following table shows the exports and imports of bullion and specie to and from various countries during the year 1968–69.

EXPORTS AND IMPORTS OF BULLION AND SPECIE, BY COUNTRY OF CONSIGNMENT OR ORIGIN, 1968-69

($'000 f.o.b.)

	Exports			*Imports*		
Country	*Bullion*	*Specie*	*Total*	*Bullion*	*Specie*	*Total*
Fiji	12	..	12	3,194	250	3,444
France	315	..	315	..	..	..
Germany, Federal Republic of	419	..	419	26	..	26
Hong Kong	21,477	..	21,477	..	2	2
Japan	4,449	..	4,449	..	..	..
New Hebrides	..	16	16	..	..	..
New Zealand	560	20	580	76	887	963
Papua and New Guinea	..	694	694	834	2	836
Solomon Is	..	56	56	..	..	..
Switzerland	..	..	..	..	38	38
United Kingdom	17,556	11	17,567	9	13	22
United States of America	592	1	593	30	1	31
Other Countries	3	11	14	7	3	10
Australia re-imported	..	..	..	..	510	510
Total	**45,383**	**809**	**46,192**	**4,176**	**1,706**	**5,882**

Total import clearances, dutiable clearances, and net customs duties collected

The following table shows the value of total import clearances, total dutiable clearances, and the net customs duties collected during each of the years 1964–65 to 1968–69 together with the ratio of total dutiable clearances to total clearances.

TOTAL IMPORT CLEARANCES, DUTIABLE CLEARANCES, AND NET CUSTOMS DUTIES 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Total import clearances	$'000	2,890,332	2,914,520	3,030,897	3,265,116	3,432,209
Total dutiable clearances	,,	1,239,936	1,230,459	1,228,320	1,371,780	1,508,391
Total net customs duties collected	,,	263,015	265,590	269,296	306,590	340,940
Ratio of dutiable clearances to total clearances	per cent	42.9	42.2	40.5	42.0	43.9
Ratio of duties collected to dutiable clearances	,,	21.2	21.6	21.9	22.3	22.6

Overseas trade in calendar years

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show estimates of Australian exports and imports for each of the calendar years 1965 to 1969.

OVERSEAS TRADE IN CALENDAR YEARS, AUSTRALIA, 1965 TO 1969
($'000 f.o.b.)

Year	*Merchandise*		*Non-merchandise*		*Total*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
1965	2,603,723	2,959,404	79,513	55,789	2,683,236	3,015,193
1966	2,742,315	2,853,925	88,960	41,199	2,831,275	2,895,124
1967	3,004,232	3,082,991	101,181	47,108	3,105,413	3,130,099
1968	3,036,221	3,443,943	112,227	45,143	3,148,448	3,489,086
1969	3,615,710	3,573,713	155,469	52,800	3,771,179	3,626,513

Excise

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of customs and excise revenue are shown in the chapter Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1967–68 and 1968–69.

QUANTITY OF SPIRITS, BEER, TOBACCO, ETC. ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA, 1967-68 AND 1968-69

Article	*1967–68*	*1968–69*
	'000 gallons	'000 gallons
Beer	297,983	312,505
	'000 proof gallons	'000 proof gallons
Spirits—		
Brandy	1,068	1,044
Gin	334	262
Whisky	339	327
Rum	514	490
Liqueurs	78	104
Vodka	141	138
Flavoured spirituous liquors	15	16
Total spirits (potable)	*2,489*	*2,381*
Spirits for—		
Fortifying wine	2,831	2,817
	'000 lb	'000 lb
Tobacco	7,390	7,053
Cigars	154	151
Cigarettes—machine-made	50,938	53,477
	'000 gallons	'000 gallons
Petrol—		
Aviation gasoline (by-law)(*a*)	8,720	9,707
Gasoline(*a*)	1,863,363	2,013,522
Total petrol	*1,872,083*	*2,023,229*
Mineral turpentine	11	5
Aviation turbine kerosene(*a*)	111,950	129,348
Other kerosene	830	334
Automotive diesel fuel	145,943	172,169
	doz. packs '000	doz packs '000
Playing cards	121	127
	60 papers or tubes '000	60 papers or tubes '000
Cigarette papers and tubes	57,849	57,493
	8,640 matches '000	8,640 matches '000
Matches	3,428	3,668
	'000 tons	'000 tons
Coal	19,299	25,771
	'000 doz containers	'000 doz containers
Canned fruit	6,805	7,676

(*a*) Includes supplies to Commonwealth Government on which excise was paid. During the years 1967–68 and 1968–69 refunds were made on 46,662,000 and 58,870,000 gallons, respectively.

OVERSEAS INVESTMENT BY PRIVATE INVESTORS

Surveys of overseas investment have been conducted since 1947–48 to obtain particulars of certain types of private capital flows to and from Australia. The surveys, when supplemented by other information, provide statistics of overseas investment in companies in Australia and in Australian public authority securities repayable in Australian currency, as well as statistics of Australian investment in companies overseas and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the surveys.

Certain types of private overseas investment are not included in the statistics which follow. Investment in real estate (except when made through companies) and loans between Australian individuals and non-resident individuals are not covered. Nor are changes in short-term liabilities between exporters and importers in Australia and overseas covered, except in so far as they arise from exports and imports between branches or subsidiaries and their home offices. In this case they are included in the figures of investment in branches or subsidiaries.

In the tables which classify investment in Australia according to country of origin, the investment is shown as an inflow from the country which is the immediate source of the capital. Income payable overseas is classified on a similar basis, i.e. it is classified to the country to which it is directly payable.

Remittances between Australia and overseas by Australian life insurance companies are regarded as capital transactions made to bring assets located in overseas countries into line with commitments in those countries, and are included as a flow of investment between Australia and overseas. Similar considerations apply to overseas life insurance companies with branches in Australia.

The following are explanatory notes relating to some of the terms used in the tables.

Companies. In these statistics the term 'companies' relates to both incorporated and unincorporated businesses.

Australian branches. Australian branches of companies incorporated overseas whose net liabilities to home office or whose net profit or loss exceeds $10,000, or which maintain in Australia a branch register of shares, debentures or unsecured notes.

Australian subsidiaries. For the purpose of these statistics an Australian subsidiary is a company in which there is ownership of 25 per cent or more of the company's ordinary shares (or voting stock) by one company or a group of associated companies in one overseas country, or ownership of 50 per cent or more of the company's ordinary shares (or voting stock) by individual persons or individual companies in one overseas country.

Direct investment. For the purpose of these statistics direct investment is overseas investment made through a branch or subsidiary (as defined above) by the overseas persons or overseas companies which hold the specified proportions of ordinary shares (or voting stock) in the subsidiary.

Overseas. For the purpose of these statistics, Papua and New Guinea and the other external territories under the control of Australia are regarded as overseas countries.

Portfolio investment and institutional loans. Investment other than direct investment, including loans raised overseas from financial institutions and other companies which have no direct investment in the borrowing company.

Undistributed profits. This term refers, in the case of Australian subsidiaries, to the equity of the overseas parent in the net earnings for taxation purposes of the Australian company, less tax (or tax provision) and less dividends declared. In the case of overseas subsidiaries of Australian companies, this term represents the equity of the Australian parent in the book value of the net earnings of the subsidiary after tax, less dividends paid or payable.

Unremitted profits. For these statistics this represents the net earnings of branches during the year, after tax, less remittances by the branches to their home offices during the year of net earnings and interest (irrespective of the period to which the earnings and interest relate). 'Net earnings' of Australian branches of overseas companies are, in general, based on the value of their income for taxation purposes.

The annual bulletin *Insurance and Other Private Finance* and the *Annual Bulletin of Overseas Investment* contain additional figures relating to overseas investment, including a longer range of years covered, and also a more detailed description of the figures.

Private overseas investment in companies in Australia and investment income payable overseas by companies in Australia.

The inflow of private overseas investment in Australia since 1964–65 is shown in the next three tables.

ANNUAL INFLOW OF PRIVATE OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA BY CATEGORY OF INVESTMENT AND TYPE OF COMPANY(*a*), 1964-65 TO 1968-69

($ million)

	Annual inflow of direct private overseas investment in companies in Australia					*Portfolio investment and institutional loans(b)*	*Grand total*
	Australian branches		*Australian subsidiaries*				
Year	*Unremitted profits*	*Other direct investment*	*Undistributed profits*	*Other direct investment*	*Total*		
1964–65 .	11	67	113	349	540	42	583
1965–66 .	15	86	110	271	481	207	688
1966–67 .	12	94	103	125	333	176	509
1967–68 .	34	110	193	195	532	416	948
1968–69 .	33	137	251	180	601	373	974

(*a*) Increases in investment by some overseas investors are offset against withdrawals of investment by other overseas investors. (*b*) Partially estimated.

ANNUAL INFLOW OF PRIVATE OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA, BY DOMICILE OF INVESTOR AND CATEGORY OF INVESTMENT(*a*), 1964–65 TO 1968–69

($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canada*	*Other countries*	*Total*
DIRECT INVESTMENT					
Undistributed income(*b*)—					
1964–65	73	3	41	7	124
1965–66	63	3	54	5	125
1966–67	60	3	51	. .	115
1967–68	116	4	102	5	227
1968–69	143	5	134	1	284
Other direct investment—					
1964–65	173	. .	195	49	416
1965–66	165	−2	142	52	357
1966–67	32	−3	162	27	219
1967–68	−3	−2	265	45	305
1968–69	62	−3	183	75	317
PORTFOLIO INVESTMENT AND INSTITUTIONAL LOANS(*c*)					
1964–65	17	11	9	5	42
1965–66	39	−1	126	43	207
1966–67	27	−2	78	72	176
1967–68	268	−2	59	91	416
1968–69	248	−12	5	132	373
TOTAL					
1964–65	263	14	245	61	583
1965–66	266	. .	321	101	688
1966–67	119	−2	292	100	509
1967–68	380	. .	426	141	948
1968–69	454	−11	323	208	974

(*a*) *See* footnote (*a*) to preceding table. (*b*) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries. (*c*) Partially estimated.

Minus sign (−) denotes outflow.

ANNUAL INFLOW OF DIRECT PRIVATE OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA, BY INDUSTRY IN WHICH CAPITAL INVESTED, 1964-65 TO 1968-69

($ million)

Year	*Primary production*	*Manufacturing*	*Other industries*	*Total*
1964–65	84	260	196	540
1965–66	128	186	167	481
1966–67	114	152	67	333
1967–68	176	210	147	532
1968–69	261	175	165	601

The next three tables show investment income payable overseas by companies in Australia.

INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA BY CATEGORY OF INCOME AND TYPE OF COMPANY, 1964-65 TO 1968-69

($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Income payable on direct investment—					
Australian branches—					
Unremitted profits	11	15	12	34	33
Remitted profits and interest	42	42	44	44	69
Australian subsidiaries—					
Undistributed profits	113	110	103	193	251
Distributed profits—					
Dividends payable	78	79	100	104	104
Interest remitted	11	13	17	21	29
Total, income payable on direct investment	*255*	*260*	*276*	*397*	*485*
Income payable on portfolio investment and institutional loans—					
Dividends	32	35	39	40	48
Interest	5	14	22	25	35
Total, income payable on portfolio investment, etc.	*37*	*49*	*60*	*65*	*84*
Grand total	**292**	**309**	**337**	**462**	**569**

INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA BY COUNTRY TO WHICH PAYABLE AND CATEGORY OF INCOME 1964-65 TO 1968-69

($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canda*	*Other countries*	*Total*
DIRECT INVESTMENT INCOME					
Undistributed income(*a*)—					
1964–65	73	3	41	7	124
1965–66	63	3	54	5	125
1966–67	60	3	51	..	115
1967–68	116	4	102	5	227
1968–69	143	5	134	1	284
Distributed income on direct investment(*b*)—					
1964–65	70	1	54	6	131
1965–66	78	..	50	6	135
1966–67	90	1	62	9	162
1967–68	82	1	76	10	169
1968–69	84	1	102	15	202
INCOME PAYABLE ON PORTFOLIO INVESTMENT AND INSTITUTIONAL LOANS					
1964–65	21	8	4	4	37
1965–66	23	9	13	5	49
1966–67	26	9	18	8	60
1967–68	27	9	20	10	65
1968–69	35	9	25	14	84
TOTAL					
1964–65	164	12	99	17	292
1965–66	164	12	117	16	309
1966–67	175	12	131	18	337
1967–68	225	14	198	25	462
1968–69	262	15	261	31	569

(*a*) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries. (*b*) Consists of remitted profits and interest of Australian branches, distributed profits and remitted interest of Australian subsidiaries.

INCOME PAYABLE OVERSEAS ON DIRECT INVESTMENT BY COMPANIES IN AUSTRALIA, BY INDUSTRY IN WHICH CAPITAL INVESTED, 1964-65 TO 1968-69

($ million)

Year	*Primary production*	*Manu-facturing*	*Other industries*	*Total*
1964–65	14	180	62	255
1965–66	25	161	74	260
1966–67	29	168	79	276
1967–68	54	221	122	397
1968–69	91	245	150	485

Australian investment in companies overseas and investment income receivable from companies overseas

The outflow of Australian investment in companies since 1964–65 and a classification by country in which the capital was invested are shown in the following two tables.

ANNUAL OUTFLOW OF PRIVATE AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS BY CATEGORY OF INVESTMENT AND TYPE OF COMPANY(*a*), 1964-65 TO 1968-69

($ million)

	Annual outflow of direct private Australian investment in companies overseas						
	Overseas branches		*Overseas subsidiaries*				
Year	*Unre-mitted profits*	*Other direct investment*	*Undis-tributed profits*	*Other direct investment*	*Total*	*Portfolio investment and institu-tional loans*	*Grand total*
1964–65 . .	−1	4	20	10	32	−6	26
1965–66 . .	2	4	16	17	38	−5	33
1966–67 . .	−1	14	15	13	40	−7	33
1967–68 . .	2	7	18	23	50	−6	44
1968–69 . .	−1	13	21	41	74	−10	64

(*a*) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors.

Minus sign (−) denotes inflow.

ANNUAL OUTFLOW OF PRIVATE AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS BY COUNTRY IN WHICH CAPITAL INVESTED(*a*), 1964-65 TO 1968-69

($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canada*	*Papua and New Guinea(b)*	*Other countries*	*Total*
1964–65	−7	12	. .	(*c*)	21	26
1965–66	2	14	1	11	6	33
1966–67	−4	8	. .	22	7	33
1967–68	. .	8	1	24	11	44
1968–69	3	13	−2	37	12	64

(*a*) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors. (*b*) Excludes portfolio investment and institutional loans. (*c*) Included with 'Other countries'.

Minus sign (−) denotes inflow.

The next two tables show income from direct investment receivable by Australian companies from companies overseas, and the countries from which it is receivable.

INCOME FROM DIRECT INVESTMENT RECEIVABLE BY AUSTRALIAN COMPANIES FROM COMPANIES OVERSEAS, BY TYPE OF COMPANY AND CATEGORY OF INCOME, 1964-65 TO 1968-69

($ million)

Year	*Overseas branches*		*Overseas subsidiaries*		
	Unremitted profits (net)	*Remitted profits and interest*	*Undistributed profits (net)*	*Dividends and interest receivable*	*Total*
1964–65	–1	5	20	18	41
1965–66	2	4	16	16	38
1966–67	–1	5	15	21	39
1967–68	2	6	18	19	45
1968–69	–1	5	21	24	49

INCOME FROM DIRECT INVESTMENT RECEIVABLE BY AUSTRALIAN COMPANIES FROM COMPANIES OVERSEAS, BY COUNTRY FROM WHICH RECEIVABLE 1964-65 TO 1968-69

($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canada*	*Papua and New Guinea(a)*	*Other countries*	*Total*
1964–65	2	21	. .	(*b*)	19	41
1965–66	1	16	1	6	12	38
1966–67	1	18	1	6	13	39
1967–68	3	18	1	9	14	45
1968–69	2	17	2	12	17	49

(*a*) Excludes portfolio investment and institutional loans. (*b*) Included with 'Other countries'.

Net annual flow of investment

The net annual flow of investment between Australia and overseas, and its classification by country, are shown in the following two tables. In addition to private overseas investment, the annual inflow of overseas investment in Australian public authority securities and net overseas remittances by life insurance companies have been incorporated in both tables.

NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEAS COUNTRIES(*a*) 1964-65 TO 1968-69

($ million)

Year	*Annual inflow of investment*	*Annual outflow of investment*	*Net annual flow*
1964–65	558	16	542
1965–66	662	27	635
1966–67	532	30	501
1967–68	1,096	39	1,057
1968–69	1,112	53	1,059

(*a*) Increases in investment by some overseas investors are offset against withdrawals of investment by other investors.

NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEAS COUNTRIES, BY COUNTRY, 1964-65 TO 1968-69

($ million)

Year	*United Kingdom*	*New Zealand*	*U.S.A. and Canada*	*Other countries*	*I.B.R.D. (a)*	*Net annual flow*
1964–65 . . .	218	. .	279	46	−1	542
1965–66 . . .	230	−16	343	85	−7	635
1966–67 . . .	57	−14	396	85	−23	501
1967–68 . . .	346	−11	606	139	−23	1,057
1968–69 . . .	434	−23	364	307	−24	1,059

(*a*) Particulars are not available of the domicile of securities issued to the International Bank for Reconstruction and Development.

Minus sign (−) denotes outflow.

BALANCE OF PAYMENTS

Estimates of a country's balance of payments are prepared for the purpose of providing a systematic record in money terms of the economic transactions which take place over a period between that country and all other countries. Such records are essential to the examination of influences which external factors have on the domestic economy. The Australian economy is subject to fairly large fluctuations in export income, and it is also affected in important respects by variations in the level of foreign investment and the demand for imports. Consequently, these estimates have always assumed particular importance in this country.

Official estimates of Australia's balance of payments covering the period 1928–29 to 1930–31 were included in the Appendix to Year Book No. 24, 1931. Except for the war years (1939 to 1945), estimates have since been published annually. Detailed estimates are currently provided twice yearly in the form of a mimeographed publication *Balance of Payments*. This publication brings the estimates forward to the end of the most recent financial year or half-year and, together with a printed volume *The Australian Balance of Payments*, 1928–29 *to* 1950–51, provides also a description of the various items included and the sources from which the information is obtained. A summarised statement of the principal current account items and capital movements is prepared and issued on a quarterly basis in the *Balance of Payments—Quarterly Summary*.

The form of presentation of the Australian estimates has recently been revised in order to bring it more closely into line with the recommendations of the Balance of Payments Manual of the International Monetary Fund (I.M.F.). The basic distinction remains, however, between 'current account' and 'capital account' transactions. Current account transactions may be defined as those involving changes in the ownership of goods or the rendering of services between residents of Australia and the rest of the world and include such items as exports, imports, shipping freights, dividends, profits and interest, travel, and government expenditure. The current account also includes the value of transfers in the form of gifts in cash or kind made or received by residents of Australia, both private and government, to or from the rest of the world. Capital account transactions may be defined as those involving claims to money and titles of investment between residents of one country and those of another country and include government loan-raising operations overseas, investment by overseas residents in Australian companies, the investment of Australian residents in companies overseas, and transactions involving changes in the overseas assets and liabilities of certain Australian marketing authorities.

By definition, the balance of payments on current account and the balance of payments on capital account during a given period must exactly offset one another. Errors and omissions, however, occur in the estimation of the amounts involved in various items in both the current and capital accounts, and, in addition, there are differences in timing between the statistical recording of trade and invisible transactions and the relevant foreign exchange transactions. It is therefore necessary to introduce into the estimates a 'balancing item' which allows the identity between the current and capital account balances to be preserved. The 'balancing item' is included in the capital account, but, as mentioned above, it includes discrepancies in the current account and does not, as is frequently supposed, include only errors, omissions and timing differences related to capital transactions.

Details of the estimates are assembled from a variety of sources of which the following are the more important: (i) statistics of exports and imports obtained from Australian trade statistics; (ii) details of the import valuation adjustment obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia; (iii) information on particular invisible current account items and capital movements obtained by regular inquiry from private organisations and government departments; (iv) details of receipts and payments of foreign exchange provided by the banking system; (v) information on dividends remitted, undistributed income and private investment in companies provided by statistics of overseas investment collected by this Bureau; (vi) information on freight on imports and other items concerned with overseas shipping obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia and a survey of shipping operations conducted by this Bureau; and (vii) information on international reserves supplied by the Reserve Bank of Australia.

Current account

The balance of payments on current account is arranged to show a series of credit items and a corresponding series of debit items. Primarily, entries on the credit side include all current transactions which result in receipts of foreign exchange (for goods and services, property income or transfers), and on the debit side the similar transactions which result in payments of foreign exchange. The principal exceptions to this rule are the amounts shown for undistributed income and where debts incurred for current account items, principally goods, are subsequently capitalised. In respect of these amounts no movements of foreign exchange takes place, the amounts concerned being treated as credits or debits in the relevant sections of the current account, and as corresponding outflows or inflows in the relevant sections of the capital account. A further exception occurs in the case of transfers in kind where no foreign exchange movement takes place. The values of transfers received or provided in kind are shown as credits or debits respectively.

The largest items shown in the current account are exports and imports, and the difference between them represents the balance of trade. This is usually the most variable relationship in the balance of payments and is, therefore, a most important one. *For balance of payments purposes, certain adjustments are made to the recorded trade statistics.* Briefly, these adjustments are made to exclude those transactions for which there is no change of ownership between residents and non-residents of Australia and to include certain transactions for which there has been a change of ownership but for which customs entries are not required. In addition, a valuation adjustment is made to the recorded import statistics in order to remove the overstatement which results from the basis of valuation for customs duty. A full description of the adjustments is provided in the Appendix to the publication *Balance of Payments*, 1968–69. A full evaluation of the overall position on current account, however, occurs only after the invisible items have been taken into account. In value terms the most important of these are the transportation items. Entries appear on both the debit and credit sides, the principal component on the debit side being freight payable overseas on imports into Australia. The principal component on the credit side is expenditure by overseas carriers, which represents mainly overseas ships' expenditure for stevedoring, port charges, etc. incurred in loading and discharging goods at Australian ports, and stores purchased in Australia. The items next in importance are those concerning income from property. Debit entries under this heading include dividends, profits, interest and royalties payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items include undistributed income for which, as mentioned above, no monetary payments occur. The remaining items are smaller than those mentioned above, and include travel, government transactions, transfers (including foreign aid made available by the Australian Government), and, on the credit side, the net value of Australian gold production.

Capital account

The capital account is also arranged to show a series of net credits and debits. Entries on the credit side represent a net increase in non-residents' assets in Australia or a net decrease in Australian assets overseas, while debit entries represent a net decrease in non-residents' assets in Australia or a net increase in Australian assets overseas.

Capital account transactions are also grouped according to the sector of the Australian party to the transactions. The government sector, therefore, includes all capital transactions of central, State, and local governments with the exception of transactions of monetary institutions (which are included in the monetary sector), while the private sector covers transactions of all resident individuals and private institutions (again, excepting monetary institutions). The monetary sector covers all banking institutions, including government-owned banks. Transactions of the monetary sector are further sub-divided into official and non-official transactions. Official transactions of Australian monetary institutions are those which cause changes in international reserves and in Australia's net I.M.F. position and transactions between the Reserve Bank of Australia and foreign central monetary institutions. Non-official transactions include all other transactions of Australian monetary institutions.

In the government sector the most important items include transactions by non-residents in government securities domiciled overseas and in Australia and transactions involving changes in Australia's assets with and liabilities to international non-monetary institutions such as the International Bank for Reconstruction and Development and the Asian Development Bank. Other government transactions are largely a reflection of the net effect on the balance of payments of leads and lags between payments made overseas for items of equipment for the defence services or government airlines and the delivery of the equipment. In periods where payments exceed the value of deliveries a net debit results; in periods where the value of deliveries exceeds payments a net credit is recorded.

In the private sector the most important items are overseas investment in Australian companies, Australian investment in companies overseas, and the transactions of marketing authorities. The figures for marketing authorities represent changes in the estimated value of commodity stocks held overseas by, or in amounts owed by overseas debtors to, the principal Australian marketing authorities.

In the monetary sector the most important item is that which shows the net change in Australia's international reserves. Also important are transactions involving changes in Australia's position with the I.M.F.

The balancing item includes errors and omissions and timing differences, referred to on pages 331–2.

Tables—Balance of payments

The following tables show, for the three years 1966–67 to 1968–69, particulars of:

(i) the balance of payments; and
(ii) the balance of payments on current account, by major groups of countries.

BALANCE OF PAYMENTS: AUSTRALIA, 1966-67 TO 1968-69
($ million)

	1966–67		*1967–68*		*1968–69*	
	Credit	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*
CURRENT ACCOUNT						
Goods—						
1 Exports f.o.b.(*a*)	2,926	. .	2,941	. .	3,217	. .
2 Imports f.o.b.(*a*)	. .	2,837	. .	3,159	. .	3,203
Balance of trade	*89*	. .	. .	*218*	*14*	. .
Invisibles—						
3 Gold production	24	. .	22	. .	20	. .
4 Transportation—						
4.1 Freight payable overseas(*b*)	. .	305	. .	365	. .	376
4.2 Expenditure of overseas carriers	220	. .	245	. .	264	. .
4.3 Other transportation	99	239	117	271	130	309
5 Travel	69	133	88	140	108	150
6 Government—						
6.1 Australian government—						
6.11 Defence expenditure	. .	49	. .	57	. .	65
6.12 Other expenditure	. .	32	. .	38	. .	46
6.13 Services to non-residents	36	. .	35	. .	39	. .
6.2 Foreign governments' expenditure	47	. .	41	. .	41	. .
7 Miscellaneous—						
7.1 Business expenses	26	54	36	51	40	64
7.2 Other	29	44	33	46	35	40
8 Property income—						
8.1 Direct investment—						
8.11 Undistributed	13	115	20	227	20	284
8.12 Distributed	26	162	25	169	29	201
8.2 Interest on government loans	. .	72	. .	76	. .	81
8.3 Royalties and copyrights	4	56	5	64	7	63
8.4 Other	80	60	79	65	94	84
9 Government transfers—						
9.1 Papua-New Guinea	. .	105	. .	103	. .	105
9.2 Other foreign aid	. .	46	. .	51	. .	54
10 Private transfers—						
10.1 Migrants' funds	100	24	116	28	122	29
10.2 Other	36	55	40	56	43	61
Balance on current account	. .	**653**	. .	**1,123**	. .	**1,006**

For footnotes *see* next page.

BALANCE OF PAYMENTS: AUSTRALIA 1966–67 TO 1968–69—*continued*

($ million)

	1966–67		*1967–68*		*1968–69*	
	Credit	*Debit*	*Credit*	*Debit*	*Credit*	*Debit*
CAPITAL ACCOUNT (NET)						
Government (non-monetary)—						
11 Government securities—						
11.1 Domiciled overseas—						
11.11 I.B.R.D.	..	23	..	23	..	24
11.12 Other central government	50	..	156	..	163	..
11.13 Local and semi-government	..	3	..	1	..	4
11.14 Discounts, etc.	..	..	2	..	3	..
11.2 Domiciled in Australia	..	2	14	..	..	..
12 International non-monetary institutions—						
12.1 Changes in assets	..	14	..	14	..	8
12.2 Changes in liabilities	4	..	3	..	..	2
13 Other government transactions	..	42	..	49	..	57
Private (non-monetary)—						
14 Overseas investment in Australian companies—						
14.1 Direct investment—						
14.11 Undistributed income	115	..	227	..	284	..
14.12 Other	218	..	305	..	317	..
14.2 Portfolio investment and institutional loans	176	..	416	..	373	..
15 Australian investment overseas—						
15.1 Direct investment—						
15.11 Undistributed income	..	13	..	20	..	20
15.12 Other	..	26	..	30	..	54
15.2 Portfolio investment	7	..	6	..	10	..
16 Other private investment	2	..	5	..	11	..
17 Marketing authorities	..	74	33	..	27	..
Monetary—						
18 Non-official transactions—						
18.1 Changes in assets	..	..	..	1	..	1
18.2 Changes in liabilities	13	..	47	..	..	6
19 Official transactions—						
19.1 I.M.F. account—						
19.11 Changes in assets	..	..	..	..	..	..
19.12 Changes in liabilities	..	26	..	71	45	..
19.2 International reserves	176	..	..	(*c*)10	..	214
19.3 Other	..	30	..	..	15	..
Balancing item	145	..	128	..	148	..
Balance on capital account	**653**	..	**1,123**	..	**1,006**	..

(*a*) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (*b*) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at $340 million in 1966–67, $401 million in 1967–68 and $414 million in 1968–69. (*c*) Excludes a reduction of $113 million in the Australian dollar equivalent during November 1967 due to the devaluation of the pound sterling and a number of other currencies held as part of Australia's international reserves.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT BY MAJOR GROUPS OF COUNTRIES: AUSTRALIA 1966-67 TO 1968-69

($ million)

	1966–67	*1967–68*	*1968–69*
EXPORTS f.o.b.(*a*)—			
Sterling—			
United Kingdom	400	422	416
Other	660	587	578
Non-sterling—			
North America	415	461	550
European Economic Community	429	381	448
European Free Trade Association(*b*)	38	32	33
Japan	582	638	815
Eastern Europe, China (mainland), etc.)	189	192	149
Other	213	228	228
Total exports	*2,926*	*2,941*	*3,217*
IMPORTS f.o.b.(*a*)—			
Sterling—			
United Kingdom	673	664	693
Other	343	360	416
Non-sterling—			
North America	815	1,029	927
European Economic Community	350	403	387
European Free Trade Association(*b*)	132	134	137
Japan	294	330	392
Eastern Europe, China (mainland), etc.	41	40	49
Other	189	199	202
Total imports	*2,837*	*3,159*	*3,203*
INVISIBLES (NET)—			
Sterling—			
United Kingdom	−165	−193	−259
Other	−188	−214	−211
Non-sterling—			
North America	−240	−310	−346
European Economic Community	−79	−94	−101
European Free Trade Association(*b*)	7	9	. .
Japan	−6	2	5
Eastern Europe, China (mainland), etc.	−5	−5	−6
Other	−68	−102	−104
International agencies	−21	−20	−18
Gold production	24	22	20
Total invisibles (net)	*−741*	*−905*	*1,020*
BALANCE ON CURRENT ACCOUNT—			
Sterling—			
United Kingdom	−437	−435	−536
Other	129	13	−49
Non-sterling—			
North America	−640	−878	−723
European Economic Community	. .	−116	−40
European Free Trade Association(*b*)	−87	−93	−104
Japan	282	310	428
Eastern Europe, China (mainland), etc.	143	147	94
Other	−44	−73	−78
International agencies	−21	−20	−18
Gold production	24	22	20
Total balance on current account	**−653**	**−1,123**	**−1,006**

(*a*) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (*b*) Other than the United Kingdom.

Minus sign (−) denotes deficit.

International reserves

The following table shows the total net gold and foreign exchange holdings of official and banking institutions as at 30 June 1967, 1968 and 1969.

AUSTRALIAN INTERNATIONAL RESERVES, 1966-67 TO 1968-69

(*Source:* Reserve Bank of Australia)

($ million)

	30 June 1967	1968	1969
Gold	204	230	231
United States dollars	251	222	400
Sterling	743	633	645
Other foreign exchange	1	12	34
Total	**1,199**	**1,097**	**1,310**

Indexes of values of exports and imports at constant prices

The following tables show annual indexes of the values of Australian exports and imports of merchandise at average 1966–67 prices. A description of these measures is given in the first issue of the bulletin *Exports and Imports of Merchandise at Constant Prices* (publication reference No. 8.21) published on 10 October 1968.

EXPORTS OF MERCHANDISE, 1959-60 TO 1968-69

Indexes of Values at Average 1966-67 Prices

(*Base: Year* 1966–67 = 100)

	Food and live animals Meat and meat preparations	Cereal and cereal preparations	Other (dairy produce, fruit, surgar, etc.)	Total food and live animals	Wool and sheepskins	Metalliferous ores and metal scrap	Metal manufactures, machinery, transport equipment	Other exports	All exports of merchandise (a)
Percentage of total value of exports in 1966–67(*b*) .	9.5	15.8	12.5	37.8	29.7	5.6	14.2	12.7	100.0
1959–60 . .	Not available								66
1960–61 . .									69
1961–62 . .									79
1962–63 . .									77
1963–64 . .									90
1964–65 . .									89
1965–66 . .									90
1966–67 . .	100	100	100	100	100	100	100	100	100
1967–68 . .	100	94	99	97	102	147	100	121	105
1968–69 . .	98	80	102	92	107	211	116	147	114

IMPORTS OF MERCHANDISE, 1959-60 TO 1968-69

Indexes of Values at Average 1966-67 Prices

(*Base: Year* 1966–67 = 100)

	Food, beverages, and tobacco	Fuels	Basic materials	Chemicals (including plastics)	Textiles, fabrics, etc.	Metal manufactures, machinery, transport equipment	Other imports	All imports of merchandise(a)
Percentage of total value of imports in 1966–67(*b*) .	5.2	8.2	7.4	9.9	8.0	43.3	18.0	100.0
1959–60 . .	Not available							64
1960–61 . .								75
1961–62 . .								61
1962–63 . .								73
1963–64 . .								81
1964–65 . .								98
1965–66 . .								98
1966–67 . .	100	100	100	100	100	100	100	100
1967–68 . .	99	100	107	109	107	111	111	109
1968–69 . .	110	105	106	123	114	116	121	116

(*a*) The series shown for years prior to 1966-67 are not strictly comparable to the series shown from 1966–67 onwards (*see* the bulletin referred to in the headnote to these two tables). (*b*) These percentages may be used in analysing the contribution of each group to movements in the total index.

CHAPTER 12

TRANSPORT, COMMUNICATION AND TRAVEL

The statistics in this chapter relate in the main to the year 1968–69, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication*, *Commonwealth Finance*, and *State, Territory and Local Government Authorities' Finance and Government Securities*, and in the annual mimeographed statement *Motor Vehicle Registrations*. Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, *Overseas Shipping Cargo* (quarterly), *Motor Vehicle Registrations* (monthly) and two preliminary monthly statements *Registrations of New Motor Vehicles*, *Road Traffic Accidents involving Casualties* (quarterly), *Road Accident Fatalities* (monthly), and *Overseas Arrivals and Departures* (monthly and quarterly)—*see* page 391. Greater detail on the latter subject is contained in the annual bulletin *Demography*.

Information additional to that contained in Bureau publications is available in the annual reports and other statements of the Department of Shipping and Transport, the various harbour boards and trusts, the several Government railways authorities, the Department of Civil Aviation, the Postmaster-General's Department, the Overseas Telecommunications Commission, the Australian Broadcasting Control Board, and the Australian Broadcasting Commission.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL AND ITS STANDING COMMITTEES

The Australian Transport Advisory Council, established April 1946, comprises the Commonwealth Minister for Shipping and Transport as Chairman, the Commonwealth Minister for the Interior and each State Minister for Transport. The administration of the Council and the standing committees it has established is the responsibility of the Commonwealth Department of Shipping and Transport. The general practice is that the Council convenes twice a year, the meetings moving successively from one capital city to another. The Council primarily considers policy matters relating to transport operation, co-ordination and development.

The regulation of, and the executive responsibility for, transport is shared between the Commonwealth and State Governments. The Australian Transport Advisory Council is the meeting ground of Commonwealth and States at a ministerial level and provides an effective means of inviting discussion and reaching, by way of mutual consent and understanding, a uniformity of approach towards transport policy and administrative procedures. It also provides a means of reviewing and discussing proposals for the national solution of pressing transport problems.

Some of the Council's most useful work has been accomplished through the agency of committees established by the Council from time to time. Some committees are of a semi-permanent nature. They were established to initiate discussion and action on transport problems referred by member Ministers and other authorities and to undertake specialised work. These committees have recently been reconstituted. The current committees are: The Standing Committee of Advisers, The Advisory Committee on Safety in Vehicle Design, The Advisory Committee on Vehicle Performance, The Advisory Committee on Road User Performance, The Advisory Committee on Transport of Dangerous Goods, and The Australian Road Safety Council.

Details of the work of the Australian Transport Advisory Council and the standing committees that have been operating until recently, were given in Year Book No. 53, 1967, pages 421–4.

SHIPPING

Control of shipping

Commonwealth navigation and shipping legislation

For an outline of the development and scope of Commonwealth legislation, *see* Year Book No. 55, pages 366–7.

Commonwealth Acts connected with shipping are: the *Navigation Act* 1919–1968, the *Sea Carriage of Goods Act* 1924, the *Seamen's Compensation Act* 1911–1968, the *Seamen's War Pensions and Allowances Act* 1940 1969, the *Pollution of the Sea by Oil Act* 1960-1965, the *Australian Coastal Shipping Commission Act* 1956–1969, the *Australian Coastal Shipping Agreement Act* 1956, the *Stevedoring Industry Act* 1956–1966, the *Beaches, Fishing Grounds and Sea Routes Protection Act* 1932–1966, the *Submarine Cables and Pipelines Protection Act* 1963–1966, and the *Lighthouses Act* 1911–1966, the last-mentioned being made under Section 51 (vii) of the Constitution, which provides power in respect of 'lighthouses, lightships, beacons and buoys'.

Australian Coastal Shipping Commission

The Commission, replacing the Australian Shipping Board, was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services. It operates The Australian National Line, a Commonwealth owned merchant shipping service which at 30 June 1969 comprised thirty-four vessels totalling 289,585 tons deadweight.

These vessels include three vehicle deck passenger ships, *Empress of Australia* 12,037 tons gross, *Princess of Tasmania* 3,981 tons gross, and *Australian Trader* 7,005 tons gross, one vehicle deck cargo ship of 4,129 tons gross; four ore carriers totalling 97,950 tons deadweight; thirteen bulk carriers totalling 128,278 tons deadweight; twelve general cargo ships totalling 52,562 tons deadweight; and one grain carrier of 2,014 tons deadweight.

At 30 June 1969 vessels on order at Australian Shipyards for the Commission included three vehicle deck cargo vessels, each of 4,417 tons deadweight, a 54,800 tons deadweight ore carrier; a 12,100 tons deadweight ore container ship for the Darwin trade. Overseas, a 14,082 tons deadweight vehicle deck container ship for the Australia–Japan trade is on order from a Japanese shipyard and at a West German yard, two container vessels each of 26,420 tons deadweight are on order for the Australia–Europe and Australia–East Coast of North America trades.

Terminals have been established in Brisbane, Sydney, Melbourne and Tasmania to service the Line's vehicle deck vessels, whilst at the 30 June 1969 construction was nearing completion of terminals in Queensland at Mackay, Rockhampton, Townsville and Cairns. New terminals are also under construction at Port Kembla and Adelaide and will come into operation with the commissioning of the third of the new vehicle deck ships.

During the twelve months ending 30 June 1969 the passenger vessels *Empress of Australia*, *Princess of Tasmania*, and in the closing stages *Australian Trader*, together with the vehicle deck cargo vessel *Bass Trader*, supplemented occasionally by conventional tonnage carried a total of 115,128 passengers and 1,384,819 tons of cargo between the Australian mainland and Tasmania. Over the same period, a total of 7,860,661 tons of cargo was carried by The Australian National Line vessels.

Australian Shipping Board

Established in March 1941 as a wartime measure under the National Security (Shipbuilding) Regulations and constituted in 1948 under the *Supply and Development Act* 1939–1948, the Board from 1951 has operated under the control of the Minister for Shipping and Transport. In November 1963 it became a division of the Department of Shipping and Transport. The Division's staff numbers 130 including naval architects, engineers, accountants and clerical staff.

The Board consist of a Chairman, and four Members, one of whom is also a Member of the Naval Board. Members are appointed by the Minister for Shipping and Transport.

The functions of the Board are to advise the Minister on matters concerning the shipbuilding industry including the consideration of tenders for ships to be built in Australia, the prices at which vessels may be purchased and sold on behalf of the Commonwealth, and the state and prospects of the industry generally.

To 31 December 1969 the Board had arranged for the construction of 190 vessels valued at approximately $496 million.

As well as specialised merchant vessels the Board has also arranged for the construction of one semi-submersible oil drilling rig, dredgers of various types, specialised offshore oil drilling service vessels, a large floating crane in addition to bulk carriers, oil tankers and container ships.

Orders held by the Board at 31 December 1969 were valued at $86 million and numbered twenty-five vessels. These included large bulk carriers of 78,000 and 55,000 tons deadweight, one 62,000 tons deadweight oil tanker, two 24,000 tons deadweight oil tankers, one 12,000 tons deadweight bulk container vessel, one roll-on roll-off cargo vessel, one 1,500 tons deadweight cargo vessel, two ferries, one seismic exploration vessel, one offshore supply vessel, one tug, a 111 ft derrick boat, one cargo barge, three dredgers and eight fast patrol launches.

There are five major Australian shipyards building merchant vessels—two in Queensland, two in South Australia, and one in New South Wales; and two shipyards engaged principally in naval shipbuilding—one in New South Wales and one in Victoria. There are also numerous small yards, situated in every State, building smaller steel and wooden working and pleasure craft.

Shipbuilding subsidy. The Australian shipbuilding industry has been subsidised since 1947, and following the 1963 Tariff Board inquiry into measures of assistance to the Australian shipbuilding industry, the Government decided to extend the shipbuilding subsidy at its existing rate of up to one-third of the cost of construction to include all types of vessels of 200 tons gross and over built in recognised shipyards and intended for use in Australian coastal or inland waterways. This came into effect on 20 May 1964. In respect of vessels of less than 200 tons gross, Australian shipbuilders are afforded protection under the Customs Tariff.

The Tariff Board again inquired into the Australian shipbuilding industry during 1969. The report and recommendations arising from the inquiry have not yet been submitted to the Government.

Australian Stevedoring Industry Authority

In March 1947 legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. In June 1949 legislation was enacted to abolish the Stevedoring Industry Commission, on which employers and employees were represented, and establish in its place a Stevedoring Industry Board of three members, to attend to administrative matters formerly under the control of the Commission, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities. The industrial functions which previously came within the province of the Commission were assigned to a single Judge of the Commonwealth Court of Conciliation and Arbitration. In August 1956, following a Committee of Inquiry into the stevedoring industry, the Stevedoring Industry Board was replaced by the Australian Stevedoring Industry Authority of three members, including a representative of the management side of industry and a representative of the trade union movement. At the same time the judicial and non-judicial functions formerly exercised by the Commonwealth Court of Conciliation and Arbitration were divided between the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission respectively. Awards of the Conciliation and Arbitration Commission subsequently placed payment of sick pay, public holiday pay and annual leave under the administration of the Authority. Under amending legislation, which operated from 6 June 1961, the Authority became responsible for payment of long service leave to registered waterside workers, and its disciplinary powers were strengthened to reduce the time lost through unauthorised stoppages. Further amending legislation which operated from 8 October 1965 made the Authority responsible for the recruitment of waterside workers.

In October 1965 the Government invited the Australian Council of Trade Unions, the Waterside Workers' Federation of Australia, the Association of Employers of Waterside Labour, the Australian Stevedoring Industry Authority, and the Department of Labour and National Service to confer under the Chairmanship of Mr A. E. Woodward, Q.C., with the overall objective of improving the long-term conditions in the stevedoring industry. Following a series of meetings, the Conference, known as the National Stevedoring Industry Conference, published a General Report in April 1967 recording agreement between the parties on a number of matters. These included *inter alia* weekly hire for all registered waterside workers in major ports, together with a pension scheme and provision for reducing the statutory retirement age progressively from seventy to sixty-five years of age. Special arrangements have been agreed to cover any prospective redundancy problems. Following adoption of the Report by all the parties, including the Government, enabling legislation was introduced to allow the changes to be implemented. Permanent employment was commenced in Sydney on 27 November 1967, in Melbourne, Port Kembla, Adelaide, Fremantle and Brisbane on the respective dates, 8 January, 19 February, 4 March, 18 March and 12 August 1968 and in Newcastle on 10 March 1969. Other appropriate ports will follow progressively.

The statutory provisions relating to the industry are now contained in the *Stevedoring Industry (Temporary Provisions) Act* 1967 (and Regulations made thereunder), the *Stevedoring Industry Act* 1956–1966, and Division 4 of Part III of the *Conciliation and Arbitration Act* 1904–1967.

Trade Practices Act 1965-1967 (Part XA)

The Trade Practices Act Part XA (Overseas Cargo Shipping) is administered by the Minister for Trade and Industry.

The Act provides for the filing, with the Clerk of Shipping Agreements, of certain agreements of a specified character between shipowners operating in the outward trades from Australia. A shipowner who is a party to such an agreement may be called upon to negotiate with a 'shipper body' with regard to arrangements for, and the terms and conditions that are to be applicable to, the cargo shipping to which the agreement relates. A 'shipper body' is an association, designated by the Minister, that represents the interests of producers and shippers of Australian export goods. Whether a shipowner has failed so to negotiate, or whether the services provided pursuant to the agreement are adequate, efficient or economical, are matters that may be referred by the Minister for inquiry and report by the Trade Practices Tribunal. Certain powers are vested in the Governor-General to disapprove an agreement after consideration of a report to the Minister by the Tribunal. A probable effect of such a disapproval would be to force the shipowners to carry on business as individuals, and not as members of a 'conference'. ('Conferences' are the associations into which shipowners traditionally combine in the cargo liner trades.) The Governor-General may, however, in his discretion approve such a shipowner entering into another similar agreement.

Since the Act came into force two shipper bodies have been designated by the Minister—the Australia to Europe Shipping Association and the Singapore and West Malaysia Shipping Association. Shippers are in the process of forming additional bodies for other trades.

In addition to the provisions relating to conferences the Act also makes similar provisions for trades where only one line is operating. Such a line may, as a result of a declaration by the Governor-General, be prohibited from engaging in certain specified activities in carrying on that business, e.g. engaging in freight-cutting with the object of substantially damaging the business of another shipowner.

The Act also contains provisions which secure rights for Australian flag vessels to operate in the trades from Australia.

Collection and presentation of statistics

Basic documents

From July 1966 shipping statistics have been compiled by the Commonwealth Bureau of Census and Statistics from returns submitted by shipping companies or their representatives to Customs Houses at the various seaports throughout Australia. A return is required for the departure of a vessel from a port as well as for its arrival at that port and shows the following details:

name of the port at which the return is submitted;
name of vessel;
type of shipping service (liner, tramp, bulkship, tanker);
port registered;
registered net tonnage;
last port of call (arrival) or next port of call (departure);
with cargo or in ballast;
date of arrival or date of departure;
ports of loading of cargo (arrival) or ports of discharge of cargo (departure);
quantity of cargo for each port of loading or discharge.

Prior to July 1966 returns were completed by officers of the Department of Customs and Excise at each port, the major differences then being that the system did not, in the main, rely on information supplied direct by shipping companies or their representatives, and the detail on returns did not include information on type of shipping service or ports of loading and discharge of cargo.

Scope of the statistics

Arrivals and departures of vessels are treated separately in shipping statistics. Not all vessels are included in the statistics as returns are not required for (i) naval vessels; (ii) yachts and other craft used for pleasure; (iii) foreign fishing vessels that neither load nor discharge cargo; (iv) Australian registered fishing vessels operating from Australian ports; (v) geographical survey vessels, seismic survey vessels, oceanographic survey vessels; (vi) offshore oil drilling rigs and vessels servicing them; (vii) vessels of 200 registered net tons and under.

Period covered by the statistics

Monthly shipping statistics relate to vessels arriving at and departing from each port in a calendar month. Annual statistics are published on a financial year basis.

Statistics of vessels

Statistics of vessels are compiled in terms of registered net tonnages. Net tonnage is expressed in units of 100 cubic feet (i.e. 100 cu ft equals 1 ton) and represents the volume of enclosed space which can be utilised for cargo or passengers.

Statistics of vessel movements

Returns show the last or next port of call of a vessel according to whether an arrival or departure at a port is being reported. Each vessel is classified to either the overseas or the coastal fleets serving

Australia. This information, supplemented by the voyage of the vessel indicated by ports it visits to load or discharge cargo, is the basis on which each vessel movement is allocated to one of the following classifications: overseas direct; overseas via other States; interstate direct; interstate via ports in the same State; intrastate via ports in the same State.

Cargo loaded or discharged

Returns for arrivals show cargo discharged, and for departures cargo loaded, in terms of units of weight or in terms of units of measurement, depending on the basis on which freight is charged. A ton measurement is a unit of 40 cubic feet. Cargo statistics show separate figures for cargo recorded in tons weight and cargo recorded in tons measurement.

Type of service

Overseas shipping cargo statistics are classified by type of service. Coastal shipping cargo statistics, on the other hand, combine all service types.

For overseas shipping, cargo shipped in liners is shown separately from cargo shipped in tramps, bulkships and tankers. A liner is a vessel which, on the voyage on which cargo is loaded or discharged at an Australian port, is operated by a common carrier in providing services on a specified route on a relatively regular basis.

Statistics of cargo shipped in liner services do not necessarily provide a measure of cargo carried by ships operating under shipping conference arrangements. For example, liner services may be provided by shipping companies which are not parties to conference agreements. Cargo may also be shipped under shipping conference conditions in vessels operating on a voyage charter basis for specific cargo, and, in the statistics, such cargo is classified as cargo shipped in tramp vessels.

Country of loading or discharge of overseas cargo

In statistics of overseas shipping cargo, country of loading or discharge of cargo is the country of location of the port where the cargo was loaded on to, or is to be discharged from, a reporting vessel. The countries shown are not necessarily the countries of origin or ultimate destination of cargo because previous or subsequent transhipments of cargo are not taken into account. The statistics of cargo classified by the country in which it was loaded or discharged cannot therefore be compared directly with statistics of overseas trade classified by country of origin or consignment.

Transhipments of cargo within Australia

The State of loading or discharge shown in the statistics is the State in which cargo is loaded on to, or discharged from, reporting vessels. Cargo loaded in a given State can therefore include cargo previously shipped interstate, while cargo discharged can include cargo which would subsequently be shipped interstate.

Overseas shipping

Total movement

The following table shows the number of entrances and clearances (combined) of vessels from and to overseas countries, and the aggregate net tonnage, during each of the years 1964-65 to 1968-69.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA
1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67(a)*	*1967–68(a)*	*1968–69(a)*
Number of vessels . . .		7,601	7,958	7,994	7,985	8,750
Net tonnage . .	'000 tons	43,295	46,382	55,062	60,387	72,578

(*a*) Excludes vessels of 200 net tons and under.

Particulars of the total overseas movement of shipping for each year from 1822 to 1920–21 were published in Year Book No. 15, page 507, those for each year from 1921–22 to 1950–51 in Year Book No. 40, page 97, and those for each year from 1941–42 in Year Book No. 54, page 1266.

Total overseas shipping, States, etc.

The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to overseas countries, and the aggregate net tonnage, during the year 1968–69.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT, STATES AND NORTHERN TERRITORY, 1968-69(a)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances	number	1,282	446	1,060	311	1,095	81	115	4,390
	'000 net tons	11,249	2,892	6,920	3,040	11,064	579	675	36,419
Clearances	number	1,166	483	1,184	238	1,125	73	91	4,360
	'000 net tons	10,022	5,281	7,564	1,509	10,577	629	577	36,159

(a) Excludes vessels of 200 net tons and under.

Country of registration of overseas shipping

Particulars of overseas shipping which entered Australian ports during each of the years 1966–67 to 1968–69 are given in the following table according to country of registration of vessels.

OVERSEAS SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS AUSTRALIA, 1966-67 TO 1968-69

('000 net tons)

Vessels registered at ports in—	*1966–67 (a)*	*1967–68 (a)*	*1968–69 (a)*
Australia	368	261	235
Denmark	409	441	669
France(b)	432	556	503
Germany, Federal Republic of	454	447	462
Greece	1,746	1,421	1,672
Hong Kong	296	187	228
India	229	353	444
Italy	894	791	681
Japan	3,426	5,130	7,377
Liberia	3,979	5,391	7,419
Netherlands	1,135	1,067	1,043
New Zealand	375	305	322
Norway	3,703	3,720	4,320
Panama	648	756	880
Sweden	930	669	771
United Kingdom	7,576	7,468	7,899
United States of America	265	252	250
Other countries	579	894	1,244
All countries—			
In cargo	18,069	18,024	19,592
Proportion of total %	65.8	59.9	53.8
In ballast	9,375	12,085	16,827
Proportion of total %	34.2	40.1	46.2
Grand total	**27,444**	**30,109**	**36,419**

(a) Excludes vessels of 200 net tons and under. (b) Includes New Caledonia, 58 during 1966–67, 2 during 1967–68, and 3 during 1968–69.

Australian registered tonnage which entered Australian ports from overseas during the year 1968–69 represented 0.65 per cent of the total tonnage entered.

Interstate shipping

Interstate movement

Interstate direct. The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including overseas vessels moving interstate direct) during each of the years 1966–67 to 1968–69.

INTERSTATE MOVEMENT: ENTRANCES OF VESSELS INTERSTATE DIRECT, STATES AND NORTHERN TERRITORY, 1966-67 TO 1968-69

	Number			*Net tons ('000)*		
State or Territory	*1966–67 (a)*	*1967–68 (a)*	*1968–69 (a)*	*1966–67 (a)*	*1967–68 (a)*	*1968–69 (a)*
New South Wales	1,757	1,836	1,852	7,627	7,972	8,550
Victoria	1,806	1,759	1,814	5,730	5,713	5,785
Queensland	803	820	880	2,785	2,921	3,376
South Australia	1,117	1,082	1,060	4,700	4,749	4,941
Western Australia	683	698	661	3,699	3,842	3,776
Tasmania	1,437	1,463	1,580	3,048	3,215	3,393
Northern Territory	72	93	113	200	219	268
Australia	**7,675**	**7,751**	**7,960**	**27,789**	**28,631**	**30,089**

(a) Excludes vessels of 200 net tons and under.

Overseas via States. The figures in the following table show the number of entrances and clearances of vessels to and from overseas countries via other Australian States, and their aggregate net tonnage.

INTERSTATE MOVEMENT: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES AND NORTHERN TERRITORY, 1968-69(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances . .	number	905	1,057	285	386	96	134	7	2,870
	'000 net tons	4,657	7,647	1,299	2,035	551	672	54	16,915
Clearances . .	number	863	792	282	477	66	240	20	2,740
	'000 net tons	4,101	3,835	1,319	2,363	374	1,047	90	13,129

(*a*) Excludes vessels of 200 net tons and under.

Total interstate movement. To ascertain the aggregate movement of interstate shipping, including the interstate movement of overseas vessels, figures in the two preceding tables must be combined. The following table shows, for each State and the Northern Territory, the total number of entrances and clearances of vessels from and for other States (including the interstate movement of overseas vessels) during the year 1968–69 together with the aggregate net tonnage.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES STATES AND NORTHERN TERRITORY, 1968-69(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances . .	number	2,757	2,871	1,165	1,446	757	1,714	120	10,830
	'000 net tons	13,207	13,432	4,675	6,976	4,327	4,065	322	47,004
Clearances . .	number	2,855	2,812	1,039	1,529	723	1,723	143	10,824
	'000 net tons	14,347	10,908	3,995	8,574	4,796	4,027	423	47,070

(*a*) Excludes vessels of 200 net tons and under.

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for Australia for each of the years 1964–65 to 1968–69.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES AUSTRALIA, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67(a)*	*1967–68(a)*	*1968–69(a)*
Entrances . .	number	11,172	11,113	10,536	10,595	10,830
	'000 net tons	42,569	43,644	43,272	44,588	47,004
Clearances . .	number	11,229	11,097	10,542	10,566	10,824
	'000 net tons	42,532	43,609	43,398	44,530	47,070

(*a*) Excludes vessels of 200 net tons and under.

Shipping engaged solely in interstate trade

The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in coastal trade (i.e. excluding overseas vessels in continuation of their overseas voyages) during the year 1968–69, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE: ENTRANCES, STATES AND NORTHERN TERRITORY, 1968-69(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Entrances . .	number	1,130	1,291	322	735	316	1,390	85	5,269
Net tons . .	'000	4,614	2,727	857	3,132	1,738	2,584	197	15,849

(*a*) Excludes vessels of 200 net tons and under.

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or intrastate services at 31 December 1969.

AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
31 DECEMBER 1969

(*Source*: Department of Shipping and Transport)

Vessels	*Number*	*Dead-weight tons*	*Gross tons*
Interstate vessels—			
Australian-owned, Australian-registered	81	817,561	610,804
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	8	23,522	21,251
Other	10	276,689	175,817
Overseas-owned, overseas registered, on charter, engaged in Australian coastal trade	2	73,887	47,605
Total interstate vessels	101	1,191,659	855,477
Intrastate vessels(*a*)	25	130,407	87,907
Total coastal trading vessels	*126*	*1,322,066*	*943,384*
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	7	55,812	53,447
Australian-owned, overseas-registered operated wholly on overseas services	8	75,690	56,768
Total overseas trading vessels	*15*	*131,502*	*110,215*
Total Australian trading vessels	**141**	**1,453,568**	**1,053,599**

(*a*) Includes four vessels registered overseas, of 48,395 deadweight tons and 32,503 gross tons.

Shipping at principal ports

For details of Harbour Boards and Trusts in each State *see* the chapter Local Government.

The following table shows the total volume of shipping—overseas, interstate and coastal—which entered the principal ports of Australia during the years 1967–68 and 1968–69.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA
1967–68 AND 1968–69

	1967–68(a)		*1968–69(a)*	
Port of entry	*Number*	*Net tons*	*Number*	*Net tons*
		'000		'000
New South Wales—				
Sydney(*b*)	4,174	17,997	4,412	19,267
Newcastle	1,778	6,635	1,768	7,456
Port Kembla	1,049	5,129	1,081	5,530
Victoria—				
Melbourne	2,857	12,301	2,927	12,585
Geelong	499	3,508	465	3,790
Queensland—				
Brisbane	1,485	6,638	1,595	7,159
Bowen	25	104	33	143
Cairns	210	619	206	587
Gladstone	224	2,378	307	3,517
Mackay	172	625	156	653
Rockhampton	121	517	111	452
Townsville	336	1,264	330	1,316
Weipa	147	1,491	186	1,867
South Australia—				
Adelaide(*c*)	1,548	7,316	1,520	7,448
Port Lincoln	252	648	276	712
Port Pirie	212	842	212	908
Rapid Bay	45	171	36	131
Wallaroo	27	129	29	160
Whyalla	386	2,206	373	2,517
Western Australia—				
Fremantle(*d*)	1,404	8,662	1,389	8,920
Albany	184	947	159	891
Bunbury	157	760	154	806
Carnarvon	17	29	13	22
Geraldton	154	756	123	686
Yampi	158	971	166	1,274
Port Hedland	300	1,540	309	2,107
Dampier	206	2,285	271	3,727
Tasmania—				
Hobart	544	1,529	566	1,598
Burnie	548	1,387	550	1,353
Devonport	424	818	471	870
Launceston	391	1,254	416	1,323
Port Latta			28	481
Northern Territory—				
Darwin	154	534	174	757
Groote Island	30	151	56	239

(*a*) Excludes vessels of 200 net tons and under. (*b*) Includes Botany Bay. (*c*) Includes Port Stanvac. (*d*) Includes Kwinana.

The following table shows the total shipping tonnage which entered the principal ports of Australia, New Zealand and the United Kingdom during 1968–69.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM, 1968-69

('000 net tons)

Port	*Net tonnage entered*	*Port*	*Net tonnage entered*	*Port*	*Net tonnage entered*
AUSTRALIA—		NEW ZEALAND—		ENGLAND AND WALES—*continued*	
Sydney (N.S.W.)(*a*)	19,267	Wellington	4,964	Dover	11,962
Melbourne (Vic.)	12,585	Auckland	4,886	Manchester (including Runcorn)	5,861
Fremantle (W.A.)(*b*)	8,925	Lyttleton	2,949	Tyne Ports	6,098
Newcastle (N.S.W.)	7,456	Whangarei	2,575	Hull	6,484
Adelaide (S.A.)(*c*)	7,407	Otago	1,058	Middlesborough	8,467
Brisbane (Qld)	7,159	Napier	1,495	Bristol	4,715
Port Kembla (N.S.W.)	5,529	Bluff	980	Swansea	4,036
Geelong (Vic.)	3,790	Taranaki	805	Cardiff	2,710
Dampier (W.A.)	3,726	Tauranga	1,575		
Gladstone (Qld)	3,516	ENGLAND AND WALES—		SCOTLAND—	
Whyalla (S.A.)	2,517	London	44,151	Glasgow	5,368
Port Hedland (W.A.)	2,107	Southampton	26,080		
Weipa (Qld)	1,867	Liverpool (including Birkenhead)	21,424	NORTHERN IRELAND—	
Hobart (Tas.)	1,598			Belfast	9,606
Burnie (Tas.)	1,352				

(*a*) Includes Botany Bay. (*b*) Includes Kwinana. (*c*) Includes Port Stanvac.

Shipping cargo

Overseas and interstate cargo

The table on page 346 shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports.

CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1964-65 TO 1968-69

('000 tons)

	Overseas cargo				*Interstate cargo*			
	Discharged		*Shipped*		*Discharged*		*Shipped*	
Year	*Weight*	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
1964–65	23,211	4,443	20,424	1,980	15,447	1,722	16,360	1,402
1965–66	24,156	4,119	21,749	2,043	15,349	1,942	16,172	1,484
1966–67	27,109	4,152	32,691	1,943	15,565	1,900	15,692	1,728
1967–68	27,572	4,684	41,339	2,102	16,980	2,079	17,207	1,876
1968–69	29,298	5,214	54,956	2,054	18,158	2,161	18,511	1,932

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1968-69

('000 tons)

Port	*Overseas cargo*				*Interstate cargo*			
	Discharged		*Shipped*		*Discharged*		*Shipped*	
	Weight	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
New South Wales—								
Sydney	3,474	2,069	4,971	587	1,022	109	344	150
Botany Bay	4,721	..	117	..	340	..	363	..
Newcastle	852	15	6,632	6	3,340	1	1,360	3
Port Kembla	563	1	2,665	3	4,821	..	1,846	..
Other	..	..	15	..	19	..	..	..
Total, New South Wales	*9,610*	*2,085*	*14,400*	*596*	*9,542*	*110*	*3,915*	*153*
Victoria—								
Melbourne	3,662	1,953	1,065	635	1,564	760	485	867
Geelong	3,597	16	843	20	867	..	503	..
Portland	139	..	92	7	70	..	1	..
Westernport	1,326	..	56	..	60	33	342	1
Other	..	..	..	..	..	..	..	..
Total, Victoria	*8,724*	*1,969*	*2,057*	*662*	*2,561*	*793*	*1,331*	*868*
Queensland—								
Brisbane	2,814	370	1,269	143	399	30	76	23
Cairns	60	1	365	1	18	5	3	6
Gladstone	163	..	5,118	..	85	..	96	..
Mackay	28	..	747	..	8	8	42	1
Townsville	30	11	755	..	92	9	96	1
Other	7	..	3,002	1	2	1	616	1
Total, Queensland	*3,102*	*382*	*11,256*	*145*	*604*	*53*	*929*	*32*
South Australia—								
Port Adelaide	478	407	486	152	923	30	248	9
Ardrossan	..	..	176	..	..	..	332	..
Port Lincoln	48	1	250	..	16	..	468	..
Port Pirie	..	..	517	..	170	..	244	..
Port Stanvac	1,878	..	10	..	172	..	279	..
Rapid Bay	..	..	..	..	..	..	66	..
Whyalla	143	..	1,459	..	1,002	..	4,121	..
Other	57	..	479	..	9	..	405	..
Total, South Australia	*2,604*	*408*	*3,377*	*152*	*2,292*	*30*	*6,163*	*9*
Western Australia—								
Fremantle	933	279	2,133	224	1,110	161	898	57
Albany	194	..	185	4	13	..	..	..
Bunbury	176	..	652	33	..	..	53	..
Dampier	130	6	10 933	..	11	..	..	..
Geraldton	124	..	1,023	..	..	..	1	..
Kwinana	3,010	..	104	..	85	..	652	..
Port Headland	48	3	5,508	..	14	3	35	..
Yampi	..	..	199	..	35	..	2,433	..
Other	146	7	412	2	44	..	1,139	4
Total, Western Australia	*4,761*	*295*	*21,149*	*263*	*1,312*	*164*	*5,211*	*61*
Tasmania—								
Hobart	127	22	113	177	602	153	347	104
Burnie	54	2	58	14	242	241	66	169
Launceston	43	13	31	30	673	172	135	137
Port Latta	..	..	1,382	..	28	..	..	..
Other	19	10	9	12	180	395	257	397
Total, Tasmania	*243*	*47*	*1,593*	*233*	*1,725*	*961*	*805*	*807*
Northern Territory—								
Darwin	252	28	704	2	115	39	..	2
Groote Island	..	..	421	..	3	3	155	..
Gove	2	..	..	..	4	7	2	..
Other	..	..	..	..	..	..	..	..
Total, Northern Territory	*254*	*28*	*1,125*	*2*	*122*	*49*	*157*	*2*
Australia	**29,298**	**5,214**	**54,956**	**2,054**	**18,158**	**2,161**	**18,511**	**1,932**

OVERSEAS AND INTERSTATE SHIPPING CARGO: AUSTRALIA

1921-22 TO 1968-69

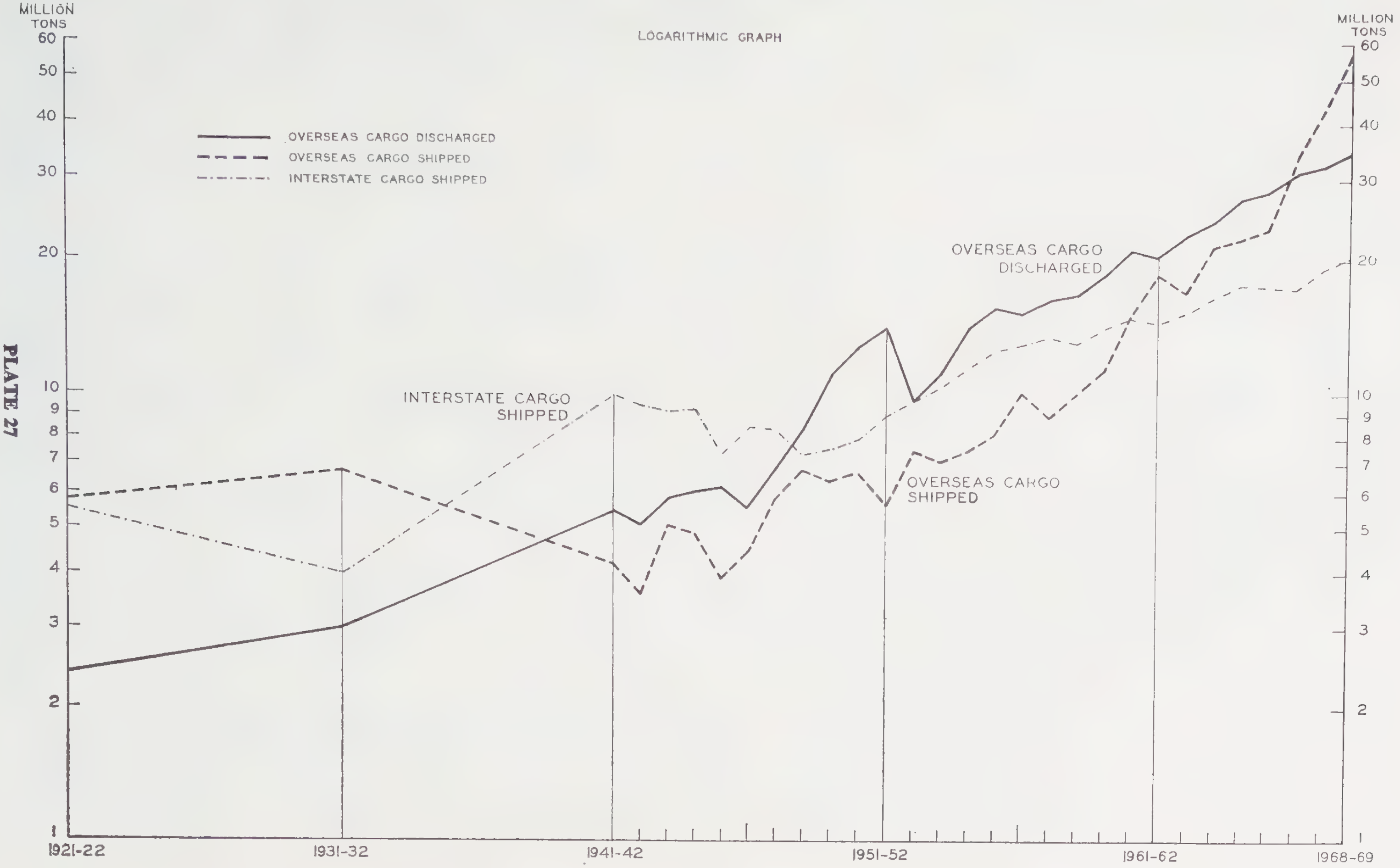


PLATE 27

Overseas cargo according to major trade areas and type of service

The tables on pages 348–9 show for the years 1966–67 to 1968–69 particulars of cargo loaded in Australia for discharge overseas, and cargo discharged in Australia from overseas, classified according to the major trade areas of the world, by type of shipping service (i.e. liner or tramp, bulkship and tanker).

CARGO LOADED IN AUSTRALIA FOR DISCHARGE OVERSEAS: MAJOR TRADE AREAS BY TYPE OF SERVICE: 1966-67 TO 1968-69

('000 tons)

State or Territory of loading	*Liners (a)*		*Tramps, bulk ships, tankers*		*All vessels*	
	Weight	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
North America and Hawaii—						
1966–67	525	101	1,249	3	1,774	104
1967–68	555	120	1,888	..	2,443	120
1968–69	582	112	2,452	..	3,034	112
South America—						
1966–67	29	5	205	1	234	6
1967–68	65	8	314	..	379	8
1968–69	25	5	300	2	325	7
Europe—						
1966–67	1,245	628	3,294	31	4,539	659
1967–68	1,120	657	4,508	70	5,628	727
1968–69	1,148	515	6,672	133	7,820	648
Africa—						
1966–67	140	58	619	..	759	58
1967–68	144	61	247	3	391	64
1968–69	150	85	237	..	387	85
Asia—						
Eastern Asia—						
1966–67	(b)	(b)	18,866	16	(b)	(b)
1967–68	(b)	(b)	26,527	2	(b)	(b)
1968–69	1,134	151	38,290	4	39,424	155
Other Asia—						
1966–67	(b)	(b)	2,850	96	(b)	(b)
1967–68	(b)	(b)	2,234	118	(b)	(b)
1968–69	872	343	1,622	130	2,494	473
Total Asia—						
1966–67	*1,941*	*424*	*21,715*	*112*	*23,656*	*536*
1967–68	*2,042*	*433*	*28,761*	*120*	*30,803*	*553*
1968–69	*2,006*	*494*	*39,912*	*134*	*41,918*	*628*
Papua and New Guinea, New Zealand and Pacific Islands—						
1966–67	737	561	969	12	1,706	573
1967–68	582	609	1,086	6	1,668	615
1968–69	596	551	855	17	1,451	568
Indian Ocean Is. and Antarctic Area—						
1966–67	..	1	22	5	22	6
1967–68	..	..	26	13	26	13
1968–69	..	..	20	5	20	5
Australia—						
1966-67	**4,618**	**1,779**	**28,074**	**164**	**32,691**	**1,943**
1967-68	**4,508**	**1,889**	**36,831**	**213**	**41,339**	**2,102**
1968-69	**4,508**	**1,763**	**50,448**	**291**	**54,956**	**2,054**

(a) Cargo and passenger liners. (b) Separate details not available.

CARGO DISCHARGED IN AUSTRALIA FROM OVERSEAS: MAJOR TRADING AREAS BY TYPE OF SERVICE: 1966-67 TO 1968-69

('000 tons)

State or Territory of unloading	*Liners(a)*		*Tramps, bulk-ships, tankers*		*All vessels*	
	Weight	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
North America and Hawaii—						
1966–67	296	632	1,941	474	2,238	1,106
1967–68	341	657	1,856	371	2,196	1,028
1968–69	391	616	1,715	474	2,106	1,090
South America—						
1966–67	6	2	1	..	7	2
1967–68	28	3	14	3	42	6
1968–69	11	1	23	1	34	2
Europe—						
1966–67	695	1,433	118	98	813	1,531
1967–68	651	1,516	137	129	788	1,644
1968–69	676	1,620	263	233	940	1,853
Africa—						
1966–67	111	62	326	..	437	62
1967–68	93	55	200	7	293	62
1968–69	121	60	62	..	183	60
Asia—						
Eastern Asia—						
1966–67	(*b*)	(*b*)	540	61	(*b*)	(*b*)
1967–68	(*b*)	(*b*)	665	209	(*b*)	(*b*)
1968–69	316	1,023	976	343	1,292	1,366
Other Asia—						
1966–67	(*b*)	(*b*)	19,633	44	(*b*)	(*b*)
1967–68	(*b*)	(*b*)	20,130	67	(*b*)	(*b*)
1968–69	137	397	21,473	92	21,610	489
Total Asia—						
1966–67	*448*	*1,111*	*20,173*	*105*	*20,621*	*1,215*
1967–68	*396*	*1,337*	*20,795*	*276*	*21,190*	*1,612*
1968–69	*453*	*1,420*	*22,449*	*435*	*22,902*	*1,855*
Papua and New Guinea, New Zealand and Pacific Islands—						
1966–67	244	231	1,907	3	2,151	234
1967–68	227	325	1,887	4	2,115	330
1968–69	277	346	2,007	6	2,283	352
Indian Ocean Is. and Antarctic Area—						
1966–67	..	..	842	2	842	2
1967–68	..	..	947	2	947	2
1968–69	..	..	851	2	851	2
Australia—						
1966-67	**1,801**	**3,470**	**25,308**	**682**	**27,109**	**4,152**
1967-68	**1,736**	**3,892**	**25,836**	**792**	**27,572**	**4,684**
1968-69	**1,929**	**4,064**	**27,369**	**1,150**	**29,298**	**5,214**

(*a*) Cargo and passenger liners. (*b*) Separate details not available.

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and shipped combined, according to the country in which the vessels were registered, during each of the years 1966–67 to 1968–69.

OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION OF VESSELS: AUSTRALIA, 1966-67 TO 1968-69

('000 tons)

	1966–67		1967–68		1968–69	
Vessels registered at ports in—	*Weight*	*Meas.*	*Weight*	*Meas.*	*Weight*	*Meas.*
Australia	714	144	475	154	532	129
Denmark	799	93	946	125	1,672	93
France and New Caledonia	891	108	1,012	91	864	114
Germany, Federal Republic of	843	349	914	339	771	375
Greece	3,772	103	3,006	113	3,496	182
Hong Kong	634	108	378	93	438	114
India	497	38	757	53	926	58
Italy	771	36	577	63	550	49
Japan	9,076	539	15,000	630	22,429	703
Liberia	9,854	76	13,921	128	18,803	239
Netherlands	2,518	355	2,226	407	2,086	411
New Zealand	668	440	527	463	577	424
Norway	10,023	354	10,376	458	11,317	595
Panama	1,567	24	1,690	17	2,005	33
Sweden	2,136	412	1,453	581	1,622	537
United Kingdom	13,674	2,626	13,379	2,719	13,480	2,802
United States of America	232	130	231	162	231	139
Other	1,131	160	2,043	190	2,455	271
Grand total	**59,800**	**6,095**	**68,911**	**6,786**	**84,254**	**7,268**

World shipping tonnage

At 1 July 1969 the total number of steamships and motorships 100 gross tons and upwards throughout the world was 50,276 with a gross tonnage of 211,660,893. Of those totals, steamships numbered 8,676 for 77,870,727 gross tons, and motorships 41,600 for 133,790,166. This includes 5,869 oil tankers of 100 gross tons and upwards with a gross tonnage of 77,391,689. Australian steamships and motorships, 321 for 893,613 gross tons constituted 0.64 per cent and 0.42 per cent respectively of the total number and gross tonnage. This information has been derived from *Lloyd's Register of Shipping*.

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 31 December 1969, classified according to: (i) year of construction, (ii) type of trade in which the vessels were engaged, and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 31 DECEMBER 1969(*a*)

(*Source:* Department of Shipping and Transport)

	Overseas and interstate vessels		*Intrastate vessels*		*Built in Australian yards*		*Built overseas*		*Total*	
Year of construction	*No.*	*Gross tons*	*No.*	*Gross tons*	*No.*	*Gross tons*	*No.*	*Gross tons*	*No.*	*Gross tons*
1965 and earlier	91	552,993	14	19,372	61	375,419	44	196,946	105	572,365
1966	1	33,774	2	2,445	3	36,219	. .	. .	3	36,219
1967	2	47,021	1	204	3	47,225	. .	. .	3	47,225
1968	4	99,210	2	669	5	63,907	1	35,972	6	99,879
1969	7	88,005	3	33,014	8	79,295	2	41,724	10	121,019
Total registered in Australia	**105**	**821,003**	**22**	**55,704**	**80**	**602,065**	**47**	**274,642**	**127**	**876,707**

(*a*) 200 gross tons and over.

Miscellaneous

Shipping freight rates

Lists of shipping freight rates for selected commodities are shown annually in the bulletin *Transport and Communications* and quarterly, in less detail, in the *Quarterly Summary of Australian Statistics.*

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast during each of the years 1964–65 to 1968–69 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(a) AUSTRALIA, 1964-65 TO 1968-69

Year	*Shipping losses*			*Other shipping Casualties*			*Total shipping casualties*		
	Vessels	*Net tons*	*Lives lost*	*Vessels*	*Net tons*	*Lives lost*	*Vessels*	*Net tons*	*Lives lost*
1964–65	..	..	..	87	315,762	..	87	315,762	..
1965–66	1	287	13	87	375,161	..	88	375,448	13
1966–67	..	..	..	104	545,927	..	104	545,927	..
1967–68	..	..	..	100	416,332	..	100	416,332	..
1968–69	..	..	..	105	434,028	..	105	434,028	..

(a) Vessels over 50 net tons.

Lighthouses; distances by sea; depth of water and tides at main ports

A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light will be found in *Transport and Communications*, Bulletin No. 60.

The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia and the depths of water and tides at principal ports of Australia will be found in *Transport and Communications*, Bulletin No. 60.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1968–69 a total of 75.7 million tons of freight were carried, an increase of 82.9 per cent over the 41.4 million tons carried in 1948–49. However, in the same twenty-year period the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 11.7 per cent from 506.7 millions in 1948–49 to 447.4 millions in 1968–69. The number of train miles run during 1968–69 (93.8 million) was only 1.6 per cent greater than in 1948–49, which is an indication of the trend towards heavier train loads with the more powerful motive power now available. Since the introduction of the first mainline diesel-electric locomotives in 1950 their numbers have increased greatly until at 30 June 1969 there were 1,188 throughout Australia. Diesel-electric locomotives during 1968–69 hauled 56 million train-miles, while steam locomotives hauled only 5 million train-miles.

Railway development

The first steam-operated railway in Australia ran between Melbourne and Port Melbourne, a distance of two miles, and was opened on 12 September 1854. It was owned and operated by the Melbourne and Hobson's Bay Railway. Within a short time privately-owned railways opened in other States, but owing to the small volume of traffic available they were soon in financial difficulties and all were taken over by the respective State Governments. Under the policy of Government ownership and control the railway networks expanded until at 30 June 1941 there were 27,234 route-miles open for traffic in Australia. This was the greatest mileage ever recorded. Since the 1939–45

War many uneconomic branch lines have been closed. From 1 July 1948 to 30 June 1969, 3,030 miles have been closed, the greatest lengths being in Western Australia (997 miles), Queensland (842 miles), and Victoria (611 miles). During this same period 904 miles of new railway were added to the networks. The following table sets out the route-miles of government railways in each State and Territory at various dates since 1855.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES 1855 TO 1969

(Miles)

30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1855(*a*)	14	2	. .	7	. .	. .	. .	. .	23
1861(*a*)	73	114	. .	56	. .	. .	. .	. .	243
1871(*a*)	358	276	218	133	. .	45	. .	. .	1,030
1881(*a*)	996	1,247	800	832	92	45	. .	. .	4,012
1891	2,182	2,763	2,195	1,666	198	351	145	. .	9,500
1901	2,846	3,237	2,801	1,736	1,355	457	145	. .	12,577
1911	3,762	3,523	3,868	1,935	2,376	470	145	. .	16,079
1921	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931	6,247	4,514	6,529	3,725	4,634	665	317	5	26,636
1941	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1961	6,303	4,050	6,324	3,836	4,577	517	490	5	26,102
1965	6,259	4,007	5,785	3,800	4,187	500	490	5	25,033
1966	6,259	3,984	5,785	3,781	4,201	500	490	5	25,005
1967	6,259	4,027	5,730	3,779	4,269	500	490	5	25,059
1968	6,265	4,012	5,825	3,780	4,269	500	490	5	25,146
1969	6,265	3,972	5,824	3,759	4,280	500	490	5	25,095

(*a*) At 31 December.

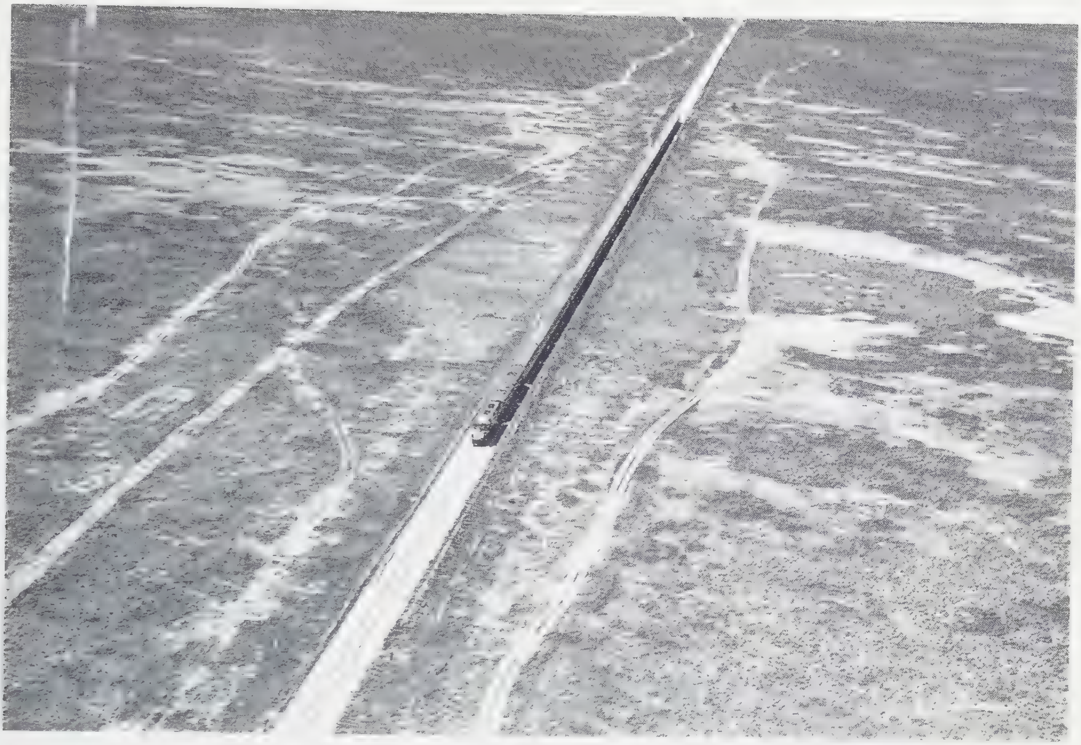
One feature of the Australian government railways is the variety of gauges to which they are built. There are three principal gauges, 'broad' (5ft 3in), 'standard' (4ft 8½in), and 'narrow' (3ft 6in). Extensive route-mileages of 3ft 6in gauge railway were built in areas where traffic volumes were initially known to be small and where it was imperative to minimise the costs of construction. The following table shows the mileages open in each State and Territory at 30 June 1969 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE STATES AND TERRITORIES, 30 JUNE 1969

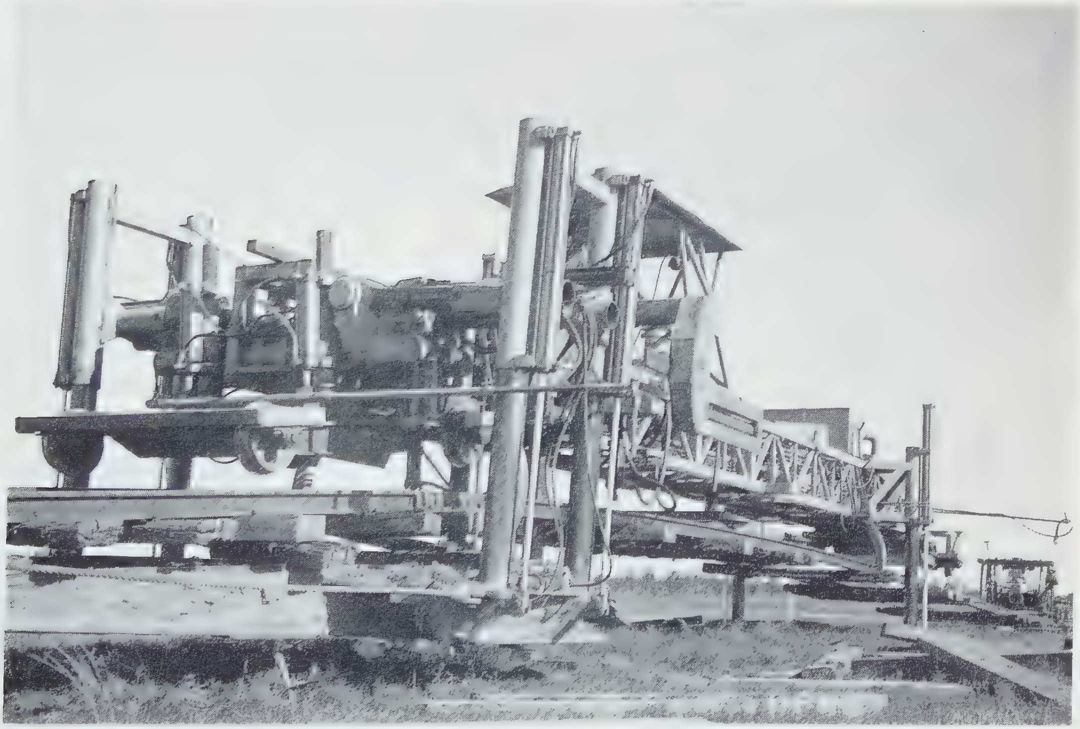
(Miles)

Gauge	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
5ft 3 in	(*a*)204	(*b*)3,761	. .	1,631	. .	. .	. .	. .	5,596
4ft 8½ in	6,061	202	69	(*c*)871	(*d*)899	. .	. .	(*e*)5	8,107
3ft 6 in	. .	. .	5,725	(*f*)1,257	(*g*)3,381	500	(*h*)490	. .	11,353
2ft 6in	. .	9	. .	. .	. .	. .	. .	. .	9
2ft 0in	. .	. .	30	. .	. .	. .	. .	. .	30
Total	**6,265**	**3,972**	**5,824**	**3,759**	**4,280**	**500**	**490**	**5**	**25,095**
Per 1,000 of population	1.40	1.17	3.29	3.28	4.52	1.29	7.21	0.04	2.04
Per 1,000 square miles	20.25	45.20	8.73	9.89	4.39	18.95	0.94	5.32	8.46

(*a*) Portion of Victorian Railway system. (*b*) Excludes 202 route-miles of 5ft 3in gauge which almost parallels the 4ft 8½in gauge line between Melbourne and the Murray River. (*c*) Comprises 654 miles of Trans-Australian and 217 miles of the Central Australia Railway systems. (*d*) Includes 454 miles of the Trans-Australian Railway system. (*e*) Australian Capital Territory Railway system. (*f*) Includes 428 miles of the Central Australia Railway system. (*g*) Excludes 248 miles of 3ft 6in gauge line which parallels the 4ft 8½in gauge line and 68 miles of 3ft 6in/4ft 8½in dual gauge line which are included in the 4ft 8½in gauge line. (*h*) Comprises 173 miles of the Central Australia and 317 miles of the North Australia Railway systems.



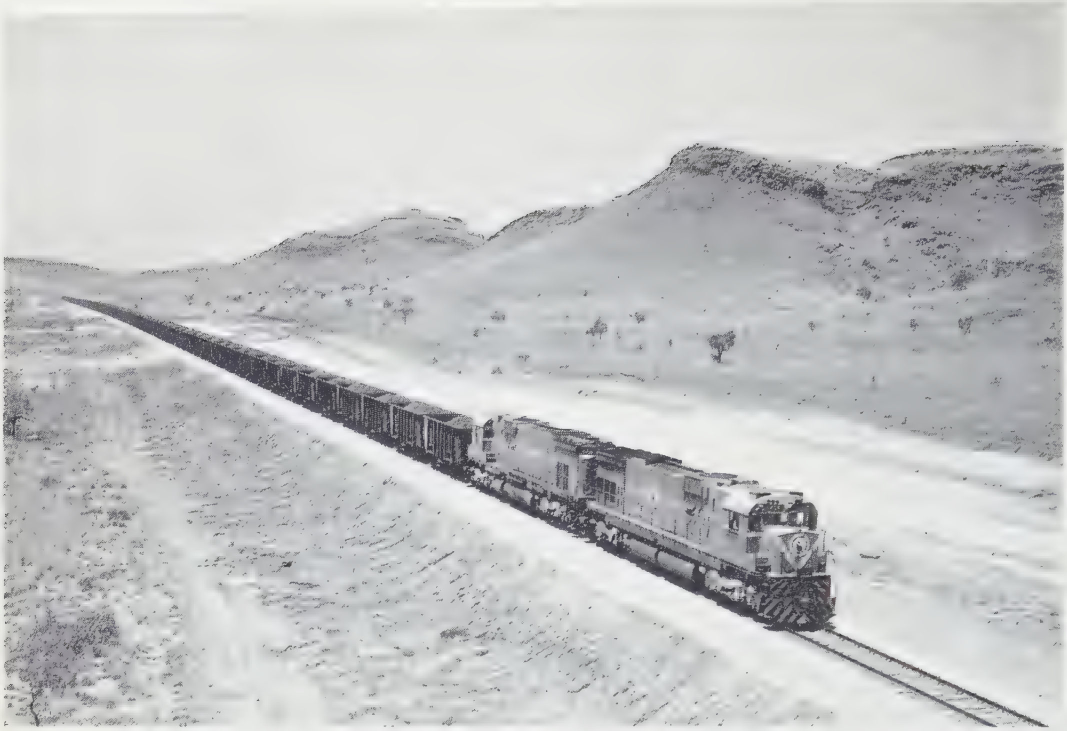
Indian-Pacific passenger express crossing the Nullabor Plain.



An auto sled in use on upgrading work between Parkes and Broken Hill.

Photos by courtesy of Australian News and Information Bureau and New South Wales Government Railways

PLATE 28



An ore train hauling nearly 10,000 tons of iron ore in Pilbara area of Western Australia.

An eight-car all double deck electric train.

Photos by courtesy of Mt Newman Iron Ore Coy Ltd and New South Wales Government Railways

PLATE 29

Government railway systems

There are six separate State Government railway systems and one Commonwealth railway system. As the Commonwealth system includes mileages in South Australia and Western Australia, and the Victorian system extends into New South Wales, the system route-mileages shown in the following table do not represent mileages within each State and Territory. These are shown in the previous table. The route-mileage of each system open for traffic, according to gauge, at 30 June 1969 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, BY GAUGE AND SYSTEM
30 JUNE 1969
(Miles)

	Gauge					
System	*5ft 3in*	*4ft 8½in*	*3ft 6in*	*2ft 6in*	*2ft 0in*	*Total*
New South Wales	..	(*a*)6,061	..	..	..	6,061
Victoria	(*b*)3,965	202	..	9	..	4,176
Queensland	..	69	5,725	..	30	5,824
South Australia	1,631	..	829	..	..	2,460
Western Australia	..	445	(*c*)3,381	..	..	3,826
Tasmania	..	..	500	..	..	500
Commonwealth	..	1,330	918	..	..	2,248
Australia	**5,596**	**8,107**	**11,353**	**9**	**30**	**25,095**

(*a*) Includes 270 route-miles which are electrified. (*b*) Excludes 202 route-miles of 5ft 3in gauge line which almost parallels the 4ft 8½in gauge line between Melbourne and the Murray River. Includes 263 route-miles which are electrified. (*c*) Excludes 248 miles of 3ft 6in gauge line which parallels the 4ft 8½in gauge line and 68 miles of 3ft 6in/4ft 8½in dual gauge line which are included in the 4ft 8½in gauge line.

The New South Wales system is based on Sydney and extends throughout the State. The Victorian system based on Melbourne radiates throughout the State, extending into areas of southern New South Wales. The Queensland system extends along the coast from Brisbane to Cairns in the north, while branch lines extend inland from Brisbane and the larger coastal cities of Rockhampton and Townsville. The main South Australian system is in the south-east of the State, but an isolated narrow-gauge system operates in the Eyre Peninsula area. The railway system in Western Australia is established in the south-western section of the State, but extends north to Meekatharra and east to Kalgoorlie and Esperance. In Tasmania the main line connects Hobart and Launceston, and there are branch lines along the northern coast.

The Commonwealth Railways comprises four separate railways. The Trans-Australian Railway, extending from Port Pirie to Kalgoorlie, is of 4ft 8½in gauge, as is that part of the Central Australia Railway from Port Augusta (Sterling North) to Maree. A further extension of this railway from Maree to Alice Springs is of 3ft 6in gauge, as is the North Australia Railway from Darwin to Birdum. The Australian Capital Territory Railway from Queanbeyan to Canberra is of 4ft 8½in gauge. In this chapter particulars of the four Commonwealth railways are combined; however, particulars for each railway are shown separately in the annual bulletin *Transport and Communication*.

A graph showing the route-mileages and traffic of all Government railways from 1870 to 1969 appears on plate 30 on page 354.

Standardisation of railway gauges

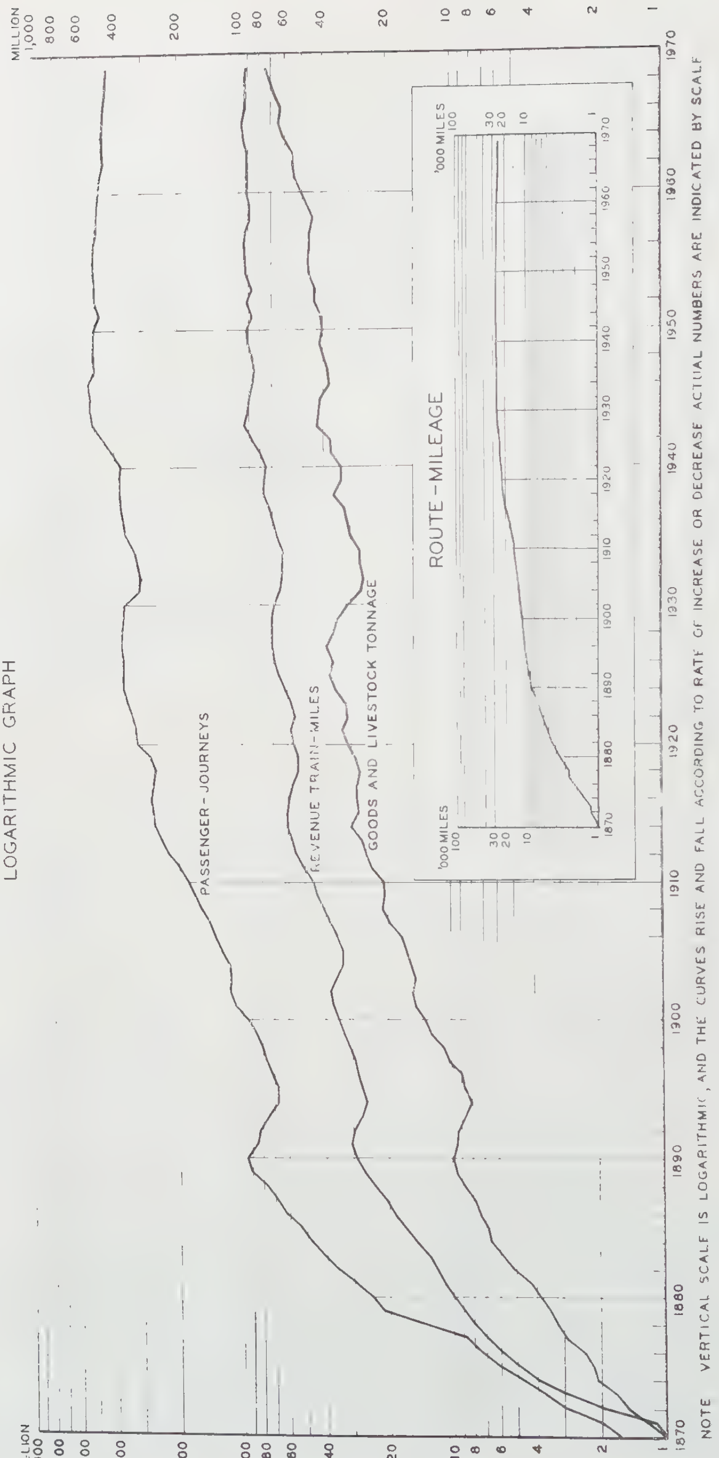
Introduction

The completion of the standard gauge line from Broken Hill to Cockburn in November 1969 saw the final step in the standard gauge link between Fremantle (Western Australia) and Sydney (New South Wales). The first through freight services to operate between Sydney and Fremantle commenced on 12 January 1970 and the new passenger service over the same route was inaugurated on 23 February 1970. This passenger service has been named the *Indian-Pacific* after the oceans it links.

GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1968-69

ROUTE MILEAGE AND TRAFFIC

LOGARITHMIC GRAPH



NOTE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE ACTUAL NUMBERS ARE INDICATED BY SCALE

PLATE 30

At this stage all mainland capital cities, except Adelaide, are linked by the standard gauge system. This system now extends from South Brisbane to Sydney via Kyogle (New South Wales); from Sydney to Melbourne via Albury (New South Wales); from Sydney to Cockburn (on the South Australia/New South Wales border) via Parkes and Broken Hill; from Cockburn to Port Pirie (South Australia); from Port Pirie to Kalgoorlie (Western Australia) via Port Augusta (South Australia); and from Kalgoorlie to Fremantle via Koolyanobbing, Merredin and Northam (Western Australia). Although the task of linking Australia by standard gauge was commenced in 1912 with the beginning of construction of the standard gauge line between Port Augusta and Kalgoorlie it took almost sixty years to complete. Major factors contributing to the delay in construction were a lack of funds and the failure of successive State and Commonwealth Governments to agree on matters concerning the introduction of the standard gauge.

Benefits

With the opening of the line from the east coast to the west coast of Australia it was possible for freight and passengers to travel for the first time in the one vehicle for the whole journey. In the past it had been necessary for rail freight consigned across the continent to be transhipped, or bogie exchanged, three times with consequent delays, damage and losses. Similarly passengers had to change trains five times on the journey between Sydney and Perth.

The major benefits of standardisation are the saving in time and costs due to the elimination of the multiple handling of goods and the trans-shipment of passengers at points of break-in-gauge. The through freight services between Sydney and Perth will take 3½ days compared with the 8 to 10 days which applied previously. Similarly passenger services have been improved and travelling time cut from about 80 hours to 65 hours. Further improvements will follow as the new track settles down and higher operating speeds become possible.

Historical background

The historical background to the standardisation of railway gauges was described in detail in Year Book No. 53, pages 440–445, and therefore will receive only a brief mention in this article. At Federation in 1901 there were three main gauges in operation in the various States. As early as 1846 the British Secretary of State for the Colonies recommended a uniform gauge of 4ft 8½in for railway construction in the Australian colonies. The main purpose of this recommendation was to avoid the problems encountered in England where different gauges were employed. In 1850 the chief engineer of the Sydney Railway Company recommended a gauge of 5ft 3in, the gauge in use in Ireland. The Secretary of State for the Colonies agreed, notified the States of Victoria and South Australia which accepted the gauge of 5ft 3in as the standard for Australia. However, in 1854 the next chief engineer of the Sydney Railway Company advised that a gauge of 4ft 8½in be used, the gauge in use in England and Scotland. This gauge was adopted in New South Wales but Victoria and South Australia did not conform as orders had been placed for 5ft 3in rolling stock. The adoption of 3ft 6in gauge by Queensland, Western Australia and Tasmania and the subsequent use of this gauge for certain lines in South Australia appears to have been based on geographical, financial and economic considerations. It is also likely that the possibility of links between States was considered to be remote.

The difficulties of the railways in providing satisfactory interstate travel and freight transport services were greatly emphasised during both world wars when serious delays occurred in the movement of troops and equipment. A Royal Commission, set up in 1921 to investigate the standardisation of gauges, recommended the conversion of the entire Victorian and South Australian networks to standard gauge and the construction of standard gauge links between Fremantle and Kalgoorlie (Western Australia), Port Augusta and Adelaide (South Australia), and Kyogle (New South Wales) and South Brisbane (Queensland). It recommended the adoption of 4ft 8½in gauge as the standard gauge because of its carrying capacity, speed tolerance, and, more importantly, because the relative cost of converting lines and rolling stock to 4ft 8½in was considerably less expensive than a similar conversion to 5ft 3in. The 4ft 8½in gauge was accepted as the standard gauge at a Premiers' Conference in November 1921. However the only practical result of the 1921 Commission was the extension of the standard gauge from Kyogle (New South Wales) to South Brisbane, which was completed in 1930, with the cost being borne by the Commonwealth Government.

In 1935 an agreement was reached between the Commonwealth and South Australian Governments for the Commonwealth to extend the standard gauge from Port Augusta to Port Pirie (South Australia). This project was completed in 1937.

In March 1944 the Commonwealth Government requested Sir Harold Clapp, Director-General of Land Transport, to submit a report and recommendations regarding the standardisation of Australia's railway gauges on the basis of a 4ft 8½in gauge. As well as making recommendations similar to those made by the Royal Commission in 1921, the Clapp Report recommended the construction of standard gauge links between Bourke (New South Wales), Dajarra and Townsville (Queensland); and between Dajarra and Birdum (Northern Territory); conversion to standard gauge of the lines between Birdum and Darwin (Northern Territory); and acquisition and conversion of the Silverton Tramway Company's line between Broken Hill (New South Wales) and Cockburn (South Australia); for further details *see* Year Book No. 53, pages 442–3. Following the Clapp Report an agreement was reached in 1949 between the South Australian and Commonwealth Governments providing for the conversion of the South Australian railway network, except for the narrow gauge in the Port Lincoln Division, to standard gauge. As an interim measure the Commonwealth Government agreed to the conversion of the narrow gauge in the south-east of South Australia (Bordertown–Naracoorte–Mt Gambier and branches) to broad gauge pending conversion to standard gauge when required. This work was completed in 1958.

Another Committee in 1956 under the direction of Mr W. C. Wentworth, M.P., modified the proposals of the Clapp Report and formed a more acceptable plan to standardise the main trunk lines from Albury (New South Wales) to Melbourne (Victoria), from Broken Hill (New South Wales) to Adelaide via Port Pirie (South Australia) and from Kalgoorlie to Fremantle (Western Australia). Except for the standard gauge link between Adelaide and Port Pirie this plan has been achieved.

Highlights of capital city standard gauge rail link-up

September 1930 . .	Kyogle to South Brisbane standard gauge line opened.
March 1945 . .	Clapp Report on Gauge Standardisation.
October 1956 . .	Wentworth Report on Gauge Standardisation.
January 1962 . .	Melbourne–Albury standard gauge line opened.
November 1962 . .	Work started on Western Australia standard gauge project.
April 1963 . . .	Work started on South Australian standard gauge project
November 1966 . .	First section of Western Australian standard gauge (Merredin to Fremantle) opened.
April 1967 . . .	First iron ore train from Koolyanobbing to Kwinana.
August 1968 . .	Western Australian standard gauge line linked with Trans-Australian Railway at Kalgoorlie.
November 1968 . .	First through Port Pirie–Perth freight train.
March 1969 . .	Port Pirie–Cockburn standard gauge line completed.
June 1969 . . .	Through passenger service, Port Pirie–Perth inaugurated.
November 1969 . .	Cockburn–Broken Hill standard gauge line completed.
January 1970 . .	First through Sydney–Perth freight service.
February 1970 . .	Official inauguration of *Indian-Pacific* passenger express.

Sydney–Melbourne standard gauge

Sydney and Melbourne were linked by standard gauge in January 1962 when the line from Sydney to Albury was extended to Melbourne in parallel with the existing Victorian 5ft 3in gauge. This line links the two most populous and highly industrialised States and is the busiest interstate rail route in Australia. Since the standard gauge line was opened, rail freight traffic between New South Wales and Victoria has increased by about two-thirds.

To enable work on this project to commence in 1957, an agreement was reached between the Commonwealth, Victorian and New South Wales Governments whereby the Commonwealth advanced the funds and accepted responsibility for 70 per cent of the cost, with the Victorian and New South Wales governments being equally responsible for repaying the remaining 30 per cent plus interest over a 50 year period.

The *Indian-Pacific* (Perth to Sydney) Route

The following describes the standardisation of each section of the route followed by the *Indian-Pacific* service and the work undertaken to establish the 2,461 miles of uniform high grade track needed for a fast and efficient freight and passenger train service between Sydney and Perth.

Sydney to Parkes (277 miles). This section has always been of standard gauge. It involves the complicated grades, curves and tunnels required to cross the Blue Mountains. Electric motive power is used as far as Lithgow. The track is of a high standard although clearances are limited through the Blue Mountains.

Parkes to Broken Hill (422 miles). This line was originally opened in 1927. Although of standard gauge it was built as a developmental line with light rails and only earth ballast. To enable it to handle fast interstate traffic, an upgrading programme was devised. The work included replacement of sleepers and ballasting, and improvement of grades, curves and bridges, at a total cost of about $12 million, of which $10 million was provided as a direct grant by the Commonwealth Government. The immediate programme did not include the provision of new rails, and the New South Wales Government has agreed to do this work at its own cost as it becomes necessary.

Broken Hill to Port Pirie (247 miles). Previously this line was operated in two parts. The first 35 miles, which were in New South Wales, were owned and operated by a private company The Silverton Tramway Company Limited, and were built under an 1886 Act of the New South Wales Parliament. From the South Australian border (Cockburn to Port Pirie) the line was owned and operated by the South Australian Railways. Both these sections were of 3ft 6in gauge. However, the standardisation project, financed by the Commonwealth Government under the Railway Standardisation (South Australia) Agreement of 1949, covered construction of a new standard gauge railway between Cockburn and Port Pirie. A new railway was constructed in New South Wales between Broken Hill and Cockburn on a more direct route than that operated by The Silverton Tramway Company. The latter work required a new agreement between the Commonwealth, New South Wales and South Australian Governments, resulting in the Railway Agreement (New South Wales and South Australia) of 1968. This railway is owned and operated by the South Australian Railways. The Silverton Tramway Company has ceased mainline operations but is continuing to operate the mine sidings in Broken Hill. Generally, the South Australian section follows the old narrow gauge route.

The project also included provision for extensive marshalling complexes at Broken Hill, Peterborough, Gladstone, and Port Pirie. A short 14 mile section of narrow gauge line between Terowie and Peterborough was converted to broad (5ft 3in) gauge to give a direct link from Adelaide without the previous transfer at Terowie. There are bogie exchange facilities at Port Pirie and Peterborough for transfers between broad (5ft 3in) and standard (4ft 8½in) gauges, and other transfer facilities have been provided at these locations and at Gladstone, where breaks of gauge still exist.

The total cost of the Broken Hill/Port Pirie work, including rolling stock, was about $52.5 million, all of which was provided by the Commonwealth Government, with 30 per cent to be repaid by South Australia over 50 years.

Port Pirie to Kalgoorlie (1,108 miles). This section is known as the Trans-Australian Railway, which is operated for the Commonwealth Government by the Commonwealth Railways. That part of the line from Port Augusta to Kalgoorlie was opened for service in 1917, and that from Port Augusta to Port Pirie in 1937. The Trans-Australian Railway has always been of standard (4ft 8½in) gauge, but until recently the track was not of a very high grade. An upgrading programme is in process involving replacement of the old 80 lb per yard rails with new continuously welded 94 lb per yard rails, and improved sleepers and ballasting. About 300 miles remain to be completed. The total cost of the upgrading work will be about $15 million, all of which will be provided by the Commonwealth Government.

Kalgoorlie to Perth (407 miles). Previously all Western Australian railways were of narrow (3ft 6in) gauge and interstate traffic had to be transhipped at Kalgoorlie (bogie exchange techniques being not suitable for narrow gauge operations). The old narrow gauge line had severe operating restrictions, particularly across the Darling ranges, east of Perth.

This project involved the construction of a new standard gauge railway between Kalgoorlie and the Perth area. The route passes through Koolyanobbing to serve the iron ore traffic from that point. In the Perth area there are connections to a passenger terminal at East Perth, the wharves at Fremantle, the grain terminal at Leighton, the industrial area at Kwinana, and to a major marshalling and servicing complex at Kewdale-Forrestfield which will replace several existing narrow gauge yards in the Perth area.

It also includes a new 64 mile section of track through the Avon Valley. This section is of double dual gauge (i.e. two separate tracks, each with three rails, enabling them to carry both 4ft 8½in and 3ft 6in gauge trains). This section replaces the old narrow gauge line across the Darling Ranges.

The project is financed under the Railway Agreement (Western Australia) of 1961. Of the total cost of about $130 million, $110 million will be provided initially by the Commonwealth. The State Government has undertaken further works in conjunction with the project and these are estimated to cost a further $30 million.

Future developments in standardisation

The Commonwealth Government has announced its intention to finance a standard gauge connection between Adelaide and the new standard gauge railway. Details of the connection have yet to be decided. When this link is forged all mainland state capital cities will then be connected to the interstate standard gauge network. However, the most direct link between Adelaide and Melbourne will still be broad gauge (5ft 3in).

The Commonwealth Government has also announced the intention to build a new standard gauge railway between Port Augusta and Whyalla (South Australia). This will be 47 miles long and will be owned and operated by Commonwealth Railways. It will connect Whyalla with the interstate standard gauge network. In addition to general goods and passenger traffic, it will be used for the carriage of considerable quantities of steel products which are at present transported by road between Whyalla and Port Augusta (for rail transport to Melbourne and Sydney).

The Commonwealth Government is also considering proposals for a new standard gauge railway, about 522 miles long, between Tarcoola on the Trans-Australian Railway, and Alice Springs. This would replace the existing narrow gauge railway between Marree and Alice Springs.

The Western Australian Government is considering the possibility of converting to standard gauge the existing narrow gauge railway between Kalgoorlie and Esperance, a distance of about 258 miles.

Operations of Government railway systems

Particulars of train-mileages, passenger-journeys, passenger-miles, freight tons carried, and freight ton-miles included in this section refer only to operations for which revenue is received.

Summary of operations

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
Train-mileage ('000)(*a*)—								
Suburban passenger	10,226	8,139	1,909	2,013	1,327	113	..	23,727
Country passenger	10,045	4,741	3,578	1,526	890	211	758	21,749
Goods(*b*) . .	17,930	6,809	11,622	2,637	5,684	873	2,801	48,356
Total . .	*38,201*	*19,689*	*17,109*	*6,176*	*7,901*	*1,197*	*3,559*	*93,832*
Passenger-journeys ('000)(*c*)—								
Suburban . .	233,211	140,788	25,771	13,760	9,832	838	..	424,200
Country(*d*) . .	15,257	4,078	2,395	664	338	207	298	23,237
Total . .	*248,469*	*144,866*	*28,165*	*14,423*	*10,170*	*1,045*	*298*	*447,437*
Passenger-miles ('000)(*e*)—								
Suburban . .	n.a.	1,263,823	n.a.	112,039	n.a.	5,567	..	n.a.
Country . .	n.a.	368,139	n.a.	84,633	67,627	11,322	125,612	n.a.
Total . .	*n.a.*	*1,631,962*	*n.a.*	*196,672*	*n.a.*	*16,889*	*125,612*	*n.a.*
Freight—								
Tons carried ('000)(*d*)	31,871	11,316	12,975	5,003	8,934	1,242	4,401	75,742
Net ton-miles (million)(*f*) . .	4,942.4	1,903.0	2,617.5	803.7	1,525.8	117.2	1,216.3	13,125.9

(*a*) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one mile for revenue purposes. (*b*) Includes mixed train-mileage. (*c*) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys (*d*) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes. (*e*) One passenger travelling one mile. (*f*) One ton carried one mile.

Rolling stock

GOVERNMENT RAILWAYS: ROLLING STOCK INCLUDED IN CAPITAL ACCOUNT

(Number)

	Locomotives							
System and date	*Steam*	*Diesel-electric*	*Electric*	*Other(a)*	*Total*	*Coaching stock(b)*	*Goods stock*	*Service stock*
30 June 1969—								
New South Wales .	199	356	41	35	631	(*c*)3,407	(*c*)19,543	2,223
Victoria . . .	72	237	35	75	419	(*c*)2,418	(*c*)20,598	(*c*)1,625
Queensland . .	178	303	. .	48	529	1,298	20,541	1,964
South Australia .	79	127	. .	. .	206	(*c*)493	7,488	(*c*)500
Western Australia .	204	147	. .	20	371	220	12,101	976
Tasmania . .	20	37	. .	21	78	130	2,347	189
Commonwealth .	1	76	. .	10	87	65	1,941	494
Australia . .	**753**	**1,283**	**76**	**209**	**2,321**	(*d*)**8,127**	(*d*)**84,584**	(*d*)**7,972**
30 June—								
1968	1,077	1,186	76	168	2,507	8,619	85,552	7,904
1967	1,337	1,054	76	156	2,623	8,727	86,887	7,920
1966	1,591	925	76	150	2,742	8,748	88,205	7,987
1965	1,782	821	76	147	2,826	8,777	88,781	8,144
1964	1,981	694	76	140	2,891	8,829	88,929	7,944

(*a*) Includes non-passenger-carrying diesel power vans. (*b*) Includes all brake vans and non-powered electric train stock. (*c*) Excludes stock jointly-owned with other systems. (*d*) Includes jointly-owned stock.

Train-mileage

Train-mileage by type of service and automotive power

GOVERNMENT RAILWAYS: TRAIN MILEAGE 1968-69

('000 miles)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
Type of service—								
Passenger—suburban	10,226	8,139	1,909	2,013	1,327	113	. .	23,727
Passenger—country .	10,045	4,741	3,578	1,526	890	211	758	21,749
Goods(*a*) . .	17,930	6,809	11,622	2,637	5,684	873	2,801	48,356
Total . .	**38,201**	**19,689**	**17,109**	**6,176**	**7,901**	**1,197**	**3,559**	**93,832**
Type of motive power—								
Hauled by diesel-electric locomotives	19,760	9,012	14,538	3,140	4,653	1,047	3,467	55,617
Hauled by steam locomotives . .	2,055	28	533	66	1,891	4	5	4,582
Hauled by electric and other locomotives .	2,282	926	171	. .	. .	16	. .	3,395
Powered coaching stock . . .	14,104	9,723	1,867	2,970	1,357	130	87	30,238
Total . .	**38,201**	**19,689**	**17,109**	**6,176**	**7,901**	**1,197**	**3,559**	**93,832**

(*a*) Includes mixed train-miles.

Total Train-mileage

TRAIN MILEAGE

('000 miles)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
1964–65	40,194	20,489	17,605	6,582	7,562	1,272	2,914	96,618
1965–66	37,694	20,145	17,640	6,492	8,043	1,283	2,955	94,252
1966–67	37,638	20,035	16,876	6,584	8,316	1,275	2,958	93,682
1967–68	38,535	19,885	16,831	6,418	8,372	1,247	3,206	94,494
1968–69	38,201	19,689	17,109	6,176	7,901	1,197	3,559	93,832

Passenger traffic

Passenger-journeys

GOVERNMENT RAILWAYS: PASSENGER-JOURNEYS(*a*), SYSTEMS, 1964-65 TO 1968-69
('000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
				SUBURBAN				
1964–65	(*b*)225,420	144,846	22,254	14,326	9,911	1,135	..	(*b*)417,892
1965–66	242,216	144,332	23,227	14,671	9,748	1,097	..	435,291
1966–67	239,986	141,593	23,703	14,608	9,468	973	..	430,331
1967–68	238,061	141,733	24,065	14,447	9,628	870	..	428,804
1968–69	233,211	140,788	25,771	13,760	9,832	838	..	424,200
				COUNTRY(*c*)				
1964–65	(*b*)13,312	4,907	2,961	870	484	205	347	(*b*)23,086
1965–66	15,352	4,793	2,752	840	419	207	342	24,705
1966–67	15,298	4,674	2,668	824	343	224	371	24,402
1967–68	15,253	4,535	2,526	795	342	217	347	24,015
1968–69	15,257	4,078	2,395	664	338	207	298	23,237
				TOTAL(*c*)				
1964–65	261,681	149,753	25,215	15,196	10,395	1,340	347	463,927
1965–66	257,568	149,125	25,979	15,511	10,168	1,304	342	459,997
1966–67	255,284	146,268	26,372	15,432	9,811	1,197	371	454,735
1967–68	253,313	146,268	26,591	15,242	9,970	1,087	347	452,818
1968–69	248,469	144,866	28,165	14,423	10,170	1,045	298	447,437

(*a*) Based on ticket sales making allowance for periodical tickets. Tickets sold at concession rates are counted as full journeys. (*b*) Excludes some passenger-journeys in New South Wales for which a dissection between suburban and country is not available. (*c*) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes.

Passenger-miles

GOVERNMENT RAILWAYS: PASSENGER-MILES(*a*), SYSTEMS, 1964-65 TO 1968-69
('000)

Year	*Vic.*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*
		SUBURBAN			
1964–65	1,279,320	119,232	69,824	7,208	..
1965–66	1,273,380	122,720	67,826	7,062	..
1966–67	1,256,759	121,549	n.a.	6,306	..
1967–68	1,250,058	117,764	n.a.	5,665	..
1968–69	1,263,823	112,039	n.a.	5,567	..
		COUNTRY			
1964–65	403,640	96,835	68,064	12,355	120,977
1965–66	396,226	95,410	66,968	11,132	121,351
1966–67	393,121	96,331	67,897	14,843	129,764
1967–68	375,783	89,629	68,065	11,427	119,772
1968–69	368,139	84,633	67,627	11,322	125,612
		TOTAL			
1964–65	1,682,960	216,067	137,888	19,563	120,977
1965–66	1,669,606	218,130	134,794	18,194	121,351
1966–67	1,649,880	217,880	n.a.	21,149	129,764
1967–68	1,625,840	207,393	n.a.	17,092	119,772
1968–69	1,631,662	196,672	n.a.	16,889	125,612

(*a*) Particulars for New South Wales and Queensland, and in consequence the totals for Australia, are not available.

Freight traffic

Freight carried

GOVERNMENT RAILWAYS: FREIGHT CARRIED(*a*), SYSTEMS
('000 tons)

Commodity and year	*N.S.W.*	*Vic.*	*Q'ld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
1968–69—								
Wheat	3,041	1,689	849	563	1,512	..	1	7,655
Other agricultural produce	911	1,004	2,773	310	422	38	30	5,488
Coal, coke and briquettes	15,070	1,303	5,283	6	229	87	2,147	24,125
Other minerals(*b*)	2,809	174	938	1,556	4,352	25	927	10,781
Wool	216	140	48	21	142	3	4	574
Fertilisers and manure	475	914	104	361	667	115	4	2,640
Cement	913	765	130	149	(*c*)	272	113	2,342
Timber	263	325	119	56	333	349	24	1,469
Livestock	349	278	724	119	88	19	130	1,707
All other commodities	7,823	4,723	2,007	1,862	(*d*)1,190	336	1,019	18,960
Total	**31,871**	**11,316**	**12,975**	**5,003**	**8,934**	**1,242**	**4,401**	**75,742**
1967–68	30,745	11,116	11,133	4,368	8,910	1,162	3,627	71,061
1966–67	29,275	12,075	10,185	4,876	7,873	1,079	3,121	68,484
1965–66	27,004	12,156	10,049	4,789	6,384	1,072	2,976	64,430
1964–65	27,889	12,596	10,031	5,089	5,229	1,091	2,919	64,844
1963–64	25,814	12,132	9,796	5,179	5,187	1,155	2,478	61,741

(*a*) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes. (*b*) Includes sand and gravel. (*c*) Cement included with 'All other commodities'. (*d*) Includes cement.

Freight net ton-miles

GOVERNMENT RAILWAYS: FREIGHT NET TON-MILES, SYSTEMS
(Million)

Commodity and year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
1968–69—								
Wheat	845.1	264.9	(*a*)	59.6	254.4	..	(*b*)	n.a.
Other agricultural produce	363.1	172.6	(*a*)	36.5	77.4	3.4	23.4	n.a.
Coal, coke and briquettes	536.7	128.0	(*a*)	1.2	11.8	10.5	334.2	n.a.
Other minerals(*c*)	350.5	18.5	(*a*)	216.9	591.6	1.0	123.9	n.a.
Wool	54.9	18.6	(*a*)	3.8	36.4	0.3	1.8	n.a.
Fertilisers and manure	148.0	153.6	(*a*)	66.2	122.0	19.2	4.3	n.a.
Cement	145.0	50.0	(*a*)	16.3	(*d*)	12.7	8.3	n.a.
Timber	92.4	60.2	(*a*)	11.0	79.9	18.3	20.9	n.a.
Livestock	136.7	49.8	188.1	18.5	15.6	2.6	49.6	460.9
All other commodities	2,270.0	986.8	2,429.4	373.7	(*e*)336.7	49.3	649.6	7,095.5
Total	**4,942.4**	**1,903.0**	**2,617.5**	**803.7**	**1,525.8**	**117.2**	**1,216.3**	**13,125.9**
1967–68	4,844.1	1,776.2	2,201.3	680.9	1,571.7	117.2	1,072.3	12,263.7
1966–67	4,554.8	1,937.4	2,003.6	739.4	1,244.1	118.2	919.2	11,516.7
1965–66	4,281.8	1,989.5	2,002.0	749.3	1,020.8	113.4	881.4	11,038.2
1964–65	4,706.0	2.028.2	1,800.9	765.4	842.1	116.6	885.8	11,145.0
1963–64	4,282.1	1,905.6	1,887.1	754.1	813.3	113.9	744.4	10,500.5

(*a*) Not available separately, included with 'All other commodities'. (*b*) Less than 50,000 net ton-miles. (*c*) Includes sand and gravel. (*d*) Cement included with 'All other commodities'. (*e*) Includes cement.

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(*a*), SYSTEMS, 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
Coaching—								
Suburban passenger	31,368	22,979	2,689	1,962	1,271	69	. .	60,338
Country passenger	15,860	7,473	3,884	1,594	1,603	143	2,643	33,200
Other	7,020	4,249	3,039	952	1,547	207	656	17,670
Total, coaching	*(b)(c)55,456*	*34,701*	*9,606*	*4,508*	*4,421*	*419*	*3,299*	*(c)112,410*
Freight (goods and livestock)—								
Wheat	(*d*)	9,376	7,166	2,415	7,601	. .	2	n.a.
Other agricultural produce	(*d*)	5,254	14,131	1,211	2,491	215	288	n.a.
Coal, coke and briquettes	(*d*)	4,211	15,526	23	639	359	2,468	n.a.
Other minerals(*e*)	(*d*)	493	9,240	7,180	8,630	60	1,952	n.a.
Wool	(*d*)	1,206	1,793	155	2,063	31	57	n.a.
Fertilisers and manure	(*d*)	3,344	971	1,107	3,322	874	31	n.a.
Cement	(*d*)	2,444	1,262	424	(*f*)	737	194	n.a.
Timber	(*d*)	2,224	1,561	273	2,490	961	226	n.a.
Livestock	3,896	1,265	9,038	833	669	131	814	16,646
All other commodities	156,558	28,711	29,228	9,732	(*g*)15,024	2,917	14,331	256,501
Total, freight	*(b)160,454*	*58,528*	*89,916*	*23,354*	*42,930*	*6,285*	*20,366*	*401,833*
Miscellaneous	(*b*)12,649	7,273	2,929	2,438	2,013	243	1,707	29,252
Grand total	**(*b*)228,560**	**100,502**	**102,452**	**30,300**	**49,364**	**6,947**	**25,371**	**543,496**

(*a*) Excludes Government grants. (*b*) Includes State Co-ordination Tax Contribution. (*c*) Includes earnings which cannot be allocated among suburban, country or other coaching earnings. (*d*) Not available separately, included with 'All other commodities'. (*e*) Includes sand and gravel. (*f*) Cement included with 'All other commodities'. (*g*) Includes cement.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*(*a*)	*Cwlth*	*Aust.*
Maintenance of way and works	32,883	22,372	27,623	(*a*)8,642	(*a*)12,679	2,219	7,802	114,220
Motive power(*b*)	67,750	29,137	33,234	(*a*)12,569	(*a*)19,238	3,202	6,569	171,701
Traffic	51,791	32,919	23,758	(*a*)10,034	12,422	2,496	4,206	137,626
Other charges	52,739	26,788	6,812	4,908	5,608	1,173	2,834	100,862
Total	**205,164**	**111,216**	**91,427**	**(*a*)36,154**	**(*a*)49,947**	**9,089**	**(*a*)24,614**	**527,611**

(*a*) Includes provision of reserves for depreciation. (*b*) Includes maintenance of rolling stock.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS SYSTEMS, 1964-65 TO 1968-69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Cwlth*	*Aust.*
GROSS EARNINGS								
1964–65 .	213,258	100,225	81,321	29,764	35,715	5,581	17,419	483,283
1965–66 .	195,336	99,519	84,178	28,947	42,571	5,985	18,091	474,627
1966–67 .	213,335	104,477	87,864	30,220	48,008	6,588	19,428	509,920
1967–68 .	224,966	99,301	94,018	28,046	51,628	6,587	22,233	526,779
1968–69 .	228,560	100,502	102,452	30,300	49,364	6,947	25,371	543,496
WORKING EXPENSES								
				(*a*)	(*a*)	(*a*)	(*a*)	
1964–65 .	187,240	99,337	80,513	31,713	36,529	7,219	15,967	458,518
1965–66 .	179,792	101,006	84,126	32,388	39,730	7,547	17,316	461,905
1966–67 .	184,992	103,423	84,295	33,962	44,513	8,325	19,411	478,921
1967–68 .	194,939	105,084	87,435	34,610	47,745	8,751	21,308	499,872
1968–69 .	205,164	111,216	91,427	36,154	49,947	9,089	24,614	527,611
NET EARNINGS(*b*)								
1964–65 .	26,018	888	808	−1,949	−814	−1,638	1,452	24,765
1965–66 .	15,544	−1,486	52	−3,441	2,841	−1,561	775	12,724
1966–67 .	28,343	1,054	3,569	−3,742	3,496	−1,737	17	31,000
1967–68 .	30,027	−5,784	6,583	−6,564	3,883	−2,164	925	26,906
1968–69 .	23,396	−10,714	11,025	−5,854	−583	−2,142	757	15,885

(*a*) Includes provision of reserves for depreciation. (*b*) Excess of gross earnings over working expenses as shown in this table.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT, SYSTEMS, 30 JUNE 1969

($'000)

		Plus *grants and other earnings payable to railways*				Less *other expenses charged to railways*					
System	*Net earnings —excess of gross earnings over working expenses*	*State Government grants*	*Road motor earnings*	*Other*	*Total*	*Interest and exchange*	*Sinking fund*	*Road motor expenses (a)*	*Other*	*Total*	*Surplus (+) or deficit (−)*
New South Wales .	23,396	(*b*)3,200	..	..	3,200	27,398	6,294	..	(*c*)888	34,580	−7,984
Victoria . . .	−10,714	(*d*)27	62	..	89	6,327	288	128	..	6,743	−17,368
Queensland . .	11,025	..	..	..	..	(*e*)22,608	(*f*)83	..	(*g*)1,400	24,091	(*h*)−13,067
South Australia .	−5,854	(*i*)11,000	222	..	11,222	5,890	..	246	(*j*)548	6,685	−1,317
Western Australia .	−583	..	1,194	..	1,194	9,456	..	1,207	..	10,663	−10,052
Tasmania . . .	−2,142	..	..	(*k*)56	56	1,095	..	..	..	1,095	−3,180
Commonwealth . .	757	..	..	..	..	..	..	..	..	..	757
Australia .	**15,885**	**14,227**	**1,478**	**56**	**15,761**	**72,775**	**6,665**	**1,581**	**2,836**	**83,857**	**−52,211**

(*a*) Includes interest and exchange. (*b*) Grants to meet losses on country developmental lines, to subsidise payments due from superannuation account. (*c*) Loan management and loan flotation expenses. (*d*) Kerang–Koondrook tramway recoup from Treasury. (*e*) Interest on opened and unopened lines, interest and redemption Mount Isa project fund, and interest on the Queensland 4ft 8½in gauge system. (*f*) Queensland 4ft 8½in gauge system only. (*g*) Demolished assets written off. (*h*) Includes deficit ($538,823) on the Queensland 4ft 8½in gauge system. (*i*) Grants towards working expenses and debt charges. (*j*) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (*k*) Miscellaneous goods revenue from rail-ferry service traffic not carried by rail.

Employment, salaries and wages

The average number of staff employed and salaries and wages paid ($'000) during the year 1968-69 were as follows: N.S.W. 44,778 ($150,657), Vic. 27,203 ($87,292), Qld 23,421 ($70,892), S.A. 8,027 ($29,239), W.A. 10,998 ($34,790), Tas. 2,156 ($6,700), Cwlth 3,662 ($13,035, Aust. 120,245 ($392,605).

Private railways

There are many private railways operating in Australia. Most of them have been built in conjunction with mining operations and some operate on a very large scale. At 30 June 1970 only three private railways offered services to the public. These are the Emu Bay Railway Company which operates 84 miles of 3ft 6in gauge line from Burnie to Rosebery (Tasmania), the South Maitland Railway Company which operates 14 miles of 4ft 8½in gauge line between Maitland and Cessnock (New South Wales), and the Aramac Shire Council which operates 42 miles of 3ft 6in gauge line from Barcaldine to Aramac (Queensland). Three other private railways which previously offered services to the public have ceased operations in recent years. The Mount Lyell Mining and Railway Company Limited closed its 21 mile line from Strahan to Queenstown (Tasmania) in August 1963. The 277 mile line from Midland Junction to Walkaway (Western Australia) which was owned by the Midland Railway of Western Australia was incorporated in the Western Australian Government Railways system in August 1964. The 35 mile line of the Silverton Tramway Company which linked Broken Hill (New South Wales) with the South Australian Railways at Cockburn (on the South Australia/New South Wales border), closed when the direct standard gauge line between Broken Hill and Cockburn began operating as part of the Sydney to Perth line in January 1970. Each of these three lines was of 3ft 6in gauge.

Several private colliery railways in the Newcastle–Maitland and Wollongong areas (New South Wales) have also closed in recent years. The remaining colliery railways in the Newcastle-Maitland area (including the South Maitland Railways) now operate as subsidiaries of Coal and Allied Industries Limited.

By the year 1965 private railways (excluding sugar cane railways) were operating less than 300 route miles of line. However in recent years this situation has changed radically and private railways are becoming increasingly important for the transport of mineral ores. Four heavy duty 4ft 8½in gauge private railways have opened recently. In 1966 Goldsworthy Mining Limited opened a 70 mile railway from Port Hedland to Mount Goldsworthy, and Hamersley Iron Proprietary Limited opened a 182 mile railway from Dampier to Mount Tom Price. Both of these lines serve recently discovered high grade iron ore deposits in the Pilbara district of Western Australia. A third railway was opened in this area during 1969 by Mount Newman Mining Company Proprietary Limited. It links Port Hedland with Mount Newman, a distance of 265 miles. An extension of Hamersley Iron's line from Mount Tom Price to Paraburdoo (approximately 65 miles) is under construction, and other privately owned railways are planned. In 1967 Broken Hill Proprietary Company Limited began operating a 25 mile railway between Port Lincoln and the lime sands deposits at Coffin Bay (South Australia). This company also operates 60 miles of 3ft 6in gauge railway between Whyalla and the iron ore deposits at Iron Knob and Iron Baron (South Australia), and 4ft 8½in gauge colliery railways in the Wollongong area (New South Wales). There are many smaller private railways serving mines and industrial complexes which, together with the railways mentioned above, now total approximately 900 route miles.

There are also approximately 2,000 route miles of permanent privately operated sugar cane railways or 'tramways' along the north-east coast of Australia, predominantly of 2 ft 0 in gauge. Additional temporary lines are laid during the cane harvesting season. Sugar railways are used for carrying cane and raw sugar in the vicinities of Cudgen (New South Wales), Nambour, Bundaberg, Mackay, Proserpine, Ayr, Giru, Ingham, Tully, Innisfail, Babinda, Gordonvale, Cairns and Mossman (Queensland). They service a total of 30 mills, including seven near Mackay and six near Bundaberg, and connect all mills, except Mossman, with Government Railway systems.

At one time there were a number of short mineral lines operating in Tasmania, and some thousands of miles of various gauges were used for hauling timber from the forests of Victoria, Western Australia and other States, but the last of these was closed in recent years.

TRAMWAY, TROLLEY-BUS, OMNIBUS, AND FERRY SERVICES

Systems in operation

Tramway and trolley-bus. At 30 June 1969 tramway services were in operation in Melbourne, Bendigo and Ballarat, Victoria and in Adelaide, South Australia. Trolley-buses were in operation in Perth, Western Australia only and these are gradually being replaced by diesel omnibuses. In Brisbane, Queensland, tramway and trolley-bus services were replaced by omnibuses during 1968 69. In Hobart and Launceston, Tasmania, trolley-buses were replaced by omnibuses on 22 November 1968 and 26 July 1968 respectively.

In many parts of Australia private lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways used for the conveyance of passengers, which are dealt with in this section. For further details, *see* page 364.

Motor omnibus. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal omnibus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Hobart, Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways. Omnibus services operated by the Tasmanian Transport Commission in Hobart, Tasmania ceased on 7 December 1968. Particulars of motor omnibus services under the control of private operators for the States of Victoria, Queensland, South Australia, and Western Australia are given in previous issues of this Year Book and in the annual bulletin *Transport and Communication.*

Ferry. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Mersey River at Devonport. Control is exercised by both governmental authorities and private operators. Particulars of the operations of these services are given in previous issues of this Year Book and in the annual bulletin *Transport and Communication.* In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tramway, trolley-bus and omnibus services

Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway and trolley-bus services by motor omnibus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations. The two following tables present combined statistics of public tramway, trolley-bus and motor omnibus services with separate details shown for each form of transport where possible.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, STATES AND TERRITORIES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Route-miles at 30 June—										
Tram(*a*)	miles	..	156	..	7	..	..	..	..	163
Trolley-bus	,,	..	..	..	..	9	..	..	..	9
Omnibus	,,	612	139	352	151	4,748	(*b*)221	55	84	6,362
Vehicle-miles—										
Tram	'000	..	16,896	2,726	416	..	..	..	..	20,038
Trolley-bus	,,	..	..	381	..	486	151	..	..	1,018
Omnibus	,,	45,095	7,099	9,271	10,262	21,482	5,242	749	2,848	102,049
Rolling stock at 30 June—										
Tram	number	..	745	..	26	..	..	..	..	771
Trolley-bus	,,	..	..	..	..	50	..	..	..	50
Omnibus	,,	1,777	283	663	333	726	274	25	129	4,210
Passenger-journeys—										
Tram	'000	..	122,246	25,039	1,770	..	..	..	..	149,055
Trolley-bus	,,	..	..	1,962	..	2,038	(*c*)	..	..	441,036
Omnibus	,,	243,787	24,271	42,504	43,623	53,700	21,246	1,317	6,589	
Gross revenue(*d*)—										
Tram, trolley-bus and omnibus	$'000	30,629	19,711	10,815	6,472	8,239	2,432	267	723	79,288
Working expenses(*e*)—										
Tram, trolley-bus and omnibus	$'000	34,485	19,652	10,908	6,104	8,779	306	234	1,181	84,649
Net revenue—										
Tram, trolley-bus and omnibus	$'000	−3,856	60	−93	368	−540	−875	33	−458	−5,361
Employees at 30 June—										
Tram, trolley-bus and omnibus	number	7,392	4,494	1,878	1,308	1,901	640	34	193	17,840
Accidents—										
Tram, trolley-bus and omnibus(*f*)—										
Persons killed	number	6	16	4	..	..	1	..	..	27
Persons injured	,,	1,069	595	128	125	333	51	..	27	2,328

(*a*) Gauge 4ft 8½in throughout. (*b*) Omnibus services operated by the Tasmanian Transport Commission ceased on 7 December 1968. (*c*) Included with omnibus services. (*d*) Excludes government grants. (*e*) Includes provision of reserves for depreciation, etc., where possible. (*f*) Excludes accidents to employees.

Minus sign (−) denotes deficit.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL
AUSTRALIA, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Route-miles at 30 June—						
Tram	miles	222	222	222	222	163
Trolley-bus	,,	65	65	65	64	9
Omnibus	,,	6,460	6,533	6,329	6,794	6,362
Vehicle miles—						
Tram	'000	24,552	23,878	23,310	22,813	20,038
Trolley-bus	,,	98,201	2,891	2,594	2,038	1,018
Omnibus	,,		96,430	98,531	99,357	102,049
Rolling stock at 30 June—						
Tram	number	1,099	1,071	1,004	1,004	771
Trolley-bus	,,	152	152	149	138	50
Omnibus	,,	3,680	3,776	3,469	3,571	4,210
Passenger-journeys—						
Tram	'000	218,086	203,179	186,346	179,280	149,055
Trolley-bus and omnibus	,,	466,524	450,015	435,054	429,819	441,036
Gross revenue(*a*)—						
Tram, trolley-bus and omnibus	$'000	65,110	66,700	72,362	72,847	79,288
Working expenses(*b*)—						
Tram, trolley-bus and omnibus	$'000	70,519	73,444	77,078	79,199	84,649
Net revenue—						
Tram, trolley-bus and omnibus	$'000	−5,409	−6,744	−4,716	−6,350	−5,361
Employees at 30 June—						
Tram, trolley-bus and omnibus	number	18,841	19,007	18,843	18,735	17,840
Accidents—						
Tram, trolley-bus and omnibus(*c*)—						
Persons killed	number	44	28	37	39	27
Persons injured	,,	2,606	2,474	2,303	2,246	2,328

(*a*) Excludes government grants. (*b*) Includes provision of reserves for depreciation, etc., where possible. (*c*) Excludes accidents to employees. Minus sign (−) denotes deficit.

MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30 June 1970 are shown in *Transport and Communication*, Bulletin No. 60, 1968–69.

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments, and the Commonwealth Government (excluding those belonging to the defence services).

Motor vehicles on register

Details of motor vehicles on the register are compiled by up-dating motor vehicle census data from information made available by the various motor vehicle registration authorities in the States and Territories. Censuses of motor vehicles are taken periodically, and at these census dates considerably greater information concerning the particulars shown in the tables following is available. Particulars of the 1962 Census are shown in Year Book No. 53, 1967, *Transport and Communication*, Bulletin No. 54, 1962–63, and in special census publications.

MOTOR VEHICLES ON THE REGISTER, BY TYPE OF VEHICLES(*a*)

				Other motor vehicles							
State or Territory and year	*Motor cars*	*Station wagons*	*Total*	*Utilities*	*Panel vans*	*Trucks*	*Other truck-types*	*Omni-buses*	*Total*	*Motor cycles*	*Tota*
31 December 1969—											
New South Wales	1,082,020	225,295	1,307,315	128,438	66,800	111 093	4,055	7,054	317,440	45,246	1,670,001
Victoria	852,365	184,825	1,037,190	91,719	37,724	91,196	3,796	4,625	229,060	19,881	1,286,131
Queensland	n.a.	n.a.	490,821	(*b*)100,894	(*b*)	(*c*)60,616	(*c*)	3,364	164,874	18,531	674,226
South Australia	304,247	55,231	359,478	37,692	11,970	34,689	1,776	2,363	88,490	13,468	461,436
Western Australia	n.a.	n.a.	304,819	n.a.	n.a.	n.a.	n.a.	n.a.	100,727	11,019	416,565
Tasmania	99,776	17,009	116,785	14,095	7,795	10,711	340	1,269	34,210	2,948	153,943
Northern Territory	10,044	4,761	14,805	5,112	1,055	2,093	80	144	8,484	1,073	24,362
Australian Capital Territory	37,448	8,307	45,755	2,905	1,839	1,515	142	247	6,648	1,539	53,942
Australia	n.a.	n.a.	**3,676,968**	n.a.	n.a.	n.a.	n.a.	n.a.	**949,933**	**113,705**	**4,740,606**
31 December—											
1968	n.a.	n.a.	3,444,806	n.a.	n.a.	n.a.	n.a.	19,727	921,705	96,740	4,463,251
1967	n.a.	n.a.	3,241,485	n.a.	n.a.	n.a.	n.a.	18,730	901,218	80,193	4,222,896
1966	n.a.	n.a.	3,060,578	n.a.	n.a.	n.a.	n.a.	17,934	888,418	68,913	4,017,909
1965	n.a.	n.a.	2,895,891	n.a.	n.a.	n.a.	n.a.	17,018	873,656	67,339	3,836,886
1964	n.a.	n.a.	2,708,741	n.a.	n.a.	n.a.	n.a.	n.a.	863,318	69,429	3,641,488
1962(*d*)	2,068,698	231,436	2,300,134	414,156	119,897	270,881	8,091	14,319	827,344	81,859	3,209,337

(*a*) All figures after December 1962 are subject to revision. (*b*) Panel vans included with utilities. (*c*) Other truck-types included with trucks. (*d*) Census figures.

MOTOR VEHICLES(*a*) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES, 1962 TO 1969

31 December—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1962(*b*)	280	301	286	339	326	293	229	316	296
1965(*c*)	319	334	333	364	361	339	267	367	333
1966(*c*)	329	341	344	371	379	355	279	381	343
1967(*c*)	341	351	353	378	394	365	304	395	354
1968(*c*)	354	364	364	386	409	391	335	411	367
1969(*c*)	369	376	378	399	431	394	350	422	381

(*a*) Excludes tractors, trailers, plant and equipment, etc. (*b*) Based on motor vehicle census figures. (*c*) Subject to revision.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type and make of vehicle in the annual bulletin *Transport and Communication*, and by type, make, and horsepower of vehicle in monthly and annual bulletins of Motor Vehicle Registrations.

In these statistics 'registrations' means registrations processed by the motor vehicle registration authorities in the States and Territories during the period.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

State or Territory and year	*Motor cars*	*Station wagons*	*Ambu-lances and hearses*	*Utilities*	*Panel vans*	*Trucks*	*Other truck-types*	*Omni-buses*	*Motor cycles*	*Total*
1969—										
New South Wales	130,633	20,804	114	12,510	7,539	9,134	506	558	11,999	193,797
Victoria	92,039	15,390	56	7,131	3,773	7,550	556	462	4,071	131,028
Queensland	39,350	8,091	90	5,975	1,680	(*a*)6,032	(*a*) 7	366	3,833	65,424
South Australia	33,620	4,847	53	3,263	1,044	2,379	149	244	2,225	47,824
Western Australia	31,055	6,637	31	5,180	2,268	3,268	126	258	1,661	50,484
Tasmania	9,798	1,335	8	1,114	522	748	29	82	763	14,399
Northern Territory	1,213	568	1	953	138	346	10	25	375	3,629
Australian Capital Territory	4,732	767	2	384	315	231	24	46	459	6,960
Australia	**342,440**	**58,439**	**355**	**36,510**	**17,279**	**29,688**	**1,407**	**2,041**	**25,386**	**513,545**
1968	310,051	58,785	393	34,734	16,318	26,705	970	1,745	22,887	472,588
1967	275,594	59,947	329	34,726	15,546	24,590	871	1,470	17,306	430,379
1966	245,175	61,513	349	33,154	13,351	22,970	837	1,399	9,738	388,486
1965	258,082	73,673	346	32,948	14,177	25,373	886	1,544	8,056	415,085
1964	250,050	82,973	336	32,983	14,598	25,360	805	1,384	6,488	414,977

(*a*) Most other truck-types included with trucks.

Drivers' and riders' licences

At 30 June 1969 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 1,907,877; Victoria, 1,435,797; South Australia, 506,036; Western Australia, 404,705; Tasmania, 161,373; Northern Territory, 33,176; Australian Capital Territory, 71,853. Particulars are not available for Queensland.

ROAD TRAFFIC ACCIDENTS

Accidents involving casualties, persons killed, persons injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED
STATES AND TERRITORIES, 1968

				Per 100,000 of mean population			*Per 10,000 motor vehicles registered(b)*		
State or Territory	*Number of accidents*	*Persons killed*	*Persons injured*	*Number of accidents*	*Persons killed*	*Persons injured*	*Number of accidents*	*Persons killed*	*Persons injured*
New South Wales	22,774	1,211	30,919	519	28	705	153	8	207
Victoria . .	15,377	949	22,095	462	29	664	131	8	188
Queensland . .	7,118	477	10,151	411	28	585	117	8	167
South Australia .	6,421	275	8,902	570	24	790	154	7	213
Western Australia	4,708	320	6,553	517	35	720	132	9	184
Tasmania . .	1,240	118	1,928	324	31	504	88	8	137
Northern Territory	357	18	512	571	29	819	185	9	266
Australian Capital Territory . .	764	14	1,150	677	12	1,020	172	3	258
Australia .	**58,759**	**3,382**	**82,210**	**488**	**28**	**683**	**138**	**8**	**193**

(*a*) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (*b*) Average number of motor vehicles on register.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED
STATES AND TERRITORIES, 1964 TO 1968

									Total		
Year	*N.S.W.*	*Vic.*	*Qld*	*S.A. (b)*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Number*	*Per 100,000 of mean population*	*Per 10,000 motor vehicles registered(c)*
Accidents involving casualties—											
1964	19,399	13,991	7,220	6,998	4,062	1,184	224	476	53,554	480	152
1965	21,052	14,336	7,134	7,267	4,170	1,206	232	535	55,932	491	150
1966	20,919	14,084	6,878	7,031	4,346	1,377	310	593	55,538	479	141
1967	21,610	14,331	7,015	7,242	4,659	1,342	359	695	57,253	484	139
1968	22,774	15,377	7,118	6,421	4,708	1,240	357	764	58,759	488	135
Persons killed—											
1964	1,010	904	461	238	222	89	25	17	2,966	27	8
1965	1,151	929	467	243	252	93	14	15	3,164	28	8
1966	1,143	955	466	270	253	104	34	17	3,242	28	8
1967	1,117	887	502	253	256	101	27	23	3,166	27	8
1968	1,211	949	477	275	320	118	18	14	3,382	28	8
Persons injured—											
1964	26,631	19,836	10,383	9,222	5,450	1,709	297	730	74,258	665	210
1965	29,157	20,446	10,078	9,491	5,638	1,815	329	769	77,723	682	208
1966	28,981	20,160	9,936	9,369	5,997	2,092	446	856	77,837	671	198
1967	29,501	20,636	9,850	9,955	6,426	2,095	541	1,017	80,021	677	194
1968	30,919	22,095	10,151	8,902	6,553	1,928	512	1,150	82,210	683	193

(*a*) *See* footnote (*a*) to previous table. (*b*) Prior to 1 October 1967 includes accidents in which the injured persons did not require surgical or medical treatment and the number of persons injured in accidents who did not require surgical or medical treatment. (*c*) *See* footnote (*b*) to previous table.

Types of road user killed or injured

Responsibility for cause of accident is not indicated by this classification.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED TYPES OF ROAD USER INVOLVED, STATES AND TERRITORIES, 1968

Type of road user	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
				PERSONS KILLED					
Drivers of motor vehicles	455	360	197	104	143	49	8	8	1,324
Motor cyclists . .	62	24	16	8	7	7	..	..	124
Pedal cyclists . .	37	35	9	19	8	1	..	..	109
Passengers (all types)(b)	364	295	173	84	106	31	5	3	1,061
Pedestrians . . .	292	227	82	59	56	30	5	3	754
Other classes(c) . .	1	8	..	1	..	..	..	..	10
Total . .	**1,211**	**949**	**477**	**275**	**320**	**118**	**18**	**14**	**3,382**
				PERSONS INJURED					
Drivers of motor vehicles	11,908	8,966	4,006	3,560	2,680	832	210	508	32,670
Motor cyclists . .	1,899	569	573	630	328	79	53	67	4,198
Pedal cyclists . .	913	958	517	517	275	39	8	42	3,269
Passengers (all types)(b)	11,992	8,893	4,137	3,376	2,485	866	197	457	32,403
Pedestrians . . .	4,175	2,664	903	810	781	112	44	76	9,565
Other classes(c) . .	32	45	15	9	4	..	..	..	105
Total . .	**30,919**	**22,095**	**10,151**	**8,902**	**6,553**	**1,928**	**512**	**1,150**	**82,210**

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Includes pillion riders. (c) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles.

Age groups of persons killed or injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED BY AGE GROUP: STATES AND TERRITORIES, 1968

Age group (years)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				PERSONS KILLED					
Under 5	36	22	13	11	11	3	1	2	99
5 and under 7 . .	19	19	5	4	6	1	1	1	56
7 ,, ,, 17 . .	89	56	32	25	29	9	1	1	242
17 ,, ,, 21 . .	200	160	115	43	54	26	3	2	603
21 ,, ,, 30 . .	251	213	87	56	75	30	7	4	723
30 ,, ,, 40 . .	104	106	53	26	35	10	1	1	336
40 ,, ,, 50 . .	145	102	53	22	29	12	..	..	363
50 ,, ,, 60 . .	140	99	33	39	27	10	2	3	353
60 and over . . .	227	171	85	43	51	16	1	..	594
Not stated . . .	..	1	1	6	3	1	1	..	13
Total . .	**1,211**	**949**	**477**	**275**	**320**	**118**	**18**	**14**	**3,382**
				PERSONS INJURED					
Under 5	1,018	738	330	248	233	52	14	39	2,672
5 and under 7 . .	592	444	178	131	142	39	16	25	1,567
7 ,, ,, 17 . .	3,489	2,503	1,389	1,154	759	231	31	115	9,671
17 ,, ,, 21 . .	6,690	4,595	2,326	1,814	1,364	470	93	313	17,665
21 ,, ,, 30 . .	7,018	5,259	2,174	1,555	1,276	408	177	281	18,148
30 ,, ,, 40 . .	3,474	2,601	1,063	861	676	174	88	151	9,088
40 ,, ,, 50 . .	3,297	2,321	971	755	561	130	51	106	8,192
50 ,, ,, 60 . .	2,459	1,684	802	594	452	120	23	69	6,203
60 and over . . .	2,368	1,616	763	505	409	118	7	45	5,831
Not stated . . .	514	334	155	1,285	681	186	12	6	3,173
Total . .	**30,919**	**22,095**	**10,151**	**8,902**	**6,553**	**1,928**	**512**	**1,150**	**82,210**

(a) *See* footnote (a) to table above.

Types of accidents

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(*a*)
NUMBER OF ACCIDENTS AND PERSONS KILLED OR INJURED, BY TYPE OF ACCIDENT STATES AND TERRITORIES, 1968

Type of accident	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
NUMBER OF ACCIDENTS									
Collisions between vehicles	11,945	8,619	3,259	3,616	2,498	692	129	474	31,232
Vehicle overturning or leaving road	3,117	2,647	2,552	691	1,182	314	142	175	10,820
Vehicle colliding with pedestrian	4,179	2,683	938	818	813	138	47	76	9,692
Vehicle colliding with fixed object(*b*)	3,191	1,232	207	1,182	146	87	25	24	6,094
Passenger accidents	193	94	54	48	28	4	4	10	435
Vehicle colliding with animal	141	81	83	27	22	5	7	4	370
Other	8	21	25	39	19	..	3	1	116
Total	**22,774**	**15,377**	**7,118**	**6,421**	**4,708**	**1,240**	**357**	**764**	**58,759**
PERSONS KILLED									
Collisions between vehicles	509	417	202	125	123	43	2	5	1,426
Vehicle overturning or leaving road	195	231	184	38	129	42	11	7	837
Vehicle colliding with pedestrian	287	221	82	59	56	29	5	2	741
Vehicle colliding with fixed object(*b*)	203	68	4	52	1	3	..	..	331
Passenger accidents	15	7	1	1	4	1	..	..	29
Vehicle colliding with animal	2	2	2	..	2	..	..	..	8
Other	..	3	2	..	5	..	..	..	10
Total	**1,211**	**949**	**477**	**275**	**320**	**118**	**18**	**14**	**3,382**
PERSONS INJURED									
Collisions between vehicles	17,720	13,775	5,092	5,346	3,833	1,175	207	767	47,915
Vehicle overturning or leaving road	4,287	3,835	3,679	1,030	1,648	491	209	254	15,433
Vehicle colliding with pedestrian	4,134	2,592	913	809	802	119	45	85	9,499
Vehicle colliding with fixed object(*b*)	4,410	1,683	280	1,584	201	133	32	29	8,352
Passenger accidents	200	91	56	54	28	3	4	10	446
Vehicle colliding with animal	160	98	108	32	25	7	12	4	446
Other	8	21	23	47	16	..	3	1	119
Total	**30,919**	**22,095**	**10,151**	**8,902**	**6,553**	**1,928**	**512**	**1,150**	**82,210**

(*a*) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (*b*) Includes parked vehicles.

ROADS

Summary of roads used for general traffic

Proclaimed or declared roads. The table following is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1969. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettals of mileages, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1969
(Miles)

Class of road	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.(a)*	*Tas.*	*Total*
State highways	6,559	4,460	6,240	8,156	3,435	1,207	60,726
Trunk roads	4,210	9,087	5,159			663	
Ordinary main roads	11,550						
Total main roads	*22,319*	*13,547*	*11,399*	*8,156*	*3,435*	*1,870*	*60,726*
Secondary roads	(*b*)164	..	(*c*)8,898	..	7,958	197	17,217
Developmental roads	2,719	..	4,355	..	(*d*)43,930	..	51,004
Tourist roads	219	483	..	..	..	47	749
Other roads	..	(*e*)505	..	..	(*f*)74	91	670
Total other roads	*3,102*	*988*	*13,253*	..	*51,962*	*335*	*69,640*
Grand total	**25,421**	**14,535**	**24,652**	**8,156**	**55,397**	**2,205**	**130,366**

(*a*) 30 June 1967. (*b*) Metropolitan only. (*c*) Includes mining access roads, farmers' roads and tourist tracks. (*d*) Maintenance of these roads is the responsibility of the several local authorities. (*e*) Forest roads and by-pass roads. (*f*) Gazetted as controlled access roadway but not constructed.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

ALL ROADS OPEN FOR GENERAL TRAFFIC:
LENGTHS, STATES AND TERRITORIES, 30 JUNE 1969
(Miles)

Surface of roads	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A. (a)*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
Bitumen or concrete	33,494	30,326	19,184	9,162	13,806	3,597	2,070	571	112,210
Gravel, crushed stone or other improved surface	41,659	29,158	18,746	18,592	23,193	8,576	1,150	242	141,316
Formed only	28,169	20,792	51,130	7,290	45,746	1,368	1,794	36	306,420
Cleared only	26,423	20,432	29,872	39,971	26,362		7,035	..	
Total	**129,745**	**100,708**	**118,932**	**75,015**	**109,107**	**13,541**	**12,049**	**849**	**559,946**

(*a*) 30 June 1967.

Further information on roads, including financial particulars, is included in Chapter 19, Local Government.

Australian Road Research Board

The Australian Road Research Board was established by the road authorities of the Commonwealth and State Governments in 1960 as a national centre for road research. The Board was incorporated in January 1965 as a public company by guarantee, memorandums and articles of association being drafted in general conformity with the constitution which had been accepted in 1960. The company members are the Commonwealth of Australia, the commissioners of the central road authorities in New South Wales, Queensland, South Australia, and Western Australia, the Department of Public Works, Tasmania, and the Country Roads Board, Victoria. The Director-General of the Commonwealth Department of Public Works and the departmental heads of the other road authorities constitute the Board, which controls all policy and activities. Finance for all activities has been provided by the company members on an agreed basis.

The objectives of A.R.R.B. include planning an adequate programme of research and development, arranging for individual projects to be carried out directly and by co-operating organisations, and providing conferences and publications to bring these and other advances to everyone interested in roads. Publications include *Proceedings* of biennial national research conferences commencing in 1962, the journal *Australian Road Research* issued four times a year, and separate reports and bulletins resulting from special research projects. The following list of possible subjects indicates the range of studies provided for in the original constitution: road planning, location, design, safety, materials, construction, maintenance, structures, equipment, traffic and transport, economics, administration, financing, management, accounting, and any other matters affecting the provision, upkeep, use, protection, and development of roads. In planning a creative programme the Board continues to look for those subjects which seem to offer the highest profit to road engineers and the community.

The work on research projects is carried out either directly by the Board's own staff, in many cases acting in co-operation with the road authorities of the various governments, or through co-operative projects established with departments of universities in Adelaide, Brisbane, Melbourne, Perth, and Sydney. The Board has endeavoured to provide or sustain the additional staff required for these external projects, but university staff members furnish advice and co-operation in all parts of these studies.

As with most research organisations, the Board has made very full use of systematic consultation through various advisory groups. Members of these groups have been recruited from persons with the ability to contribute, who were prepared to serve as individuals and not as representatives of particular organisations. In an attempt to secure completely unfettered counsel, most of the members of the advisory groups were drawn from outside the Board and its staff. The various committees include a general Advisory Council and several particular types of specialist committees. In addition, the technical committees of the National Association of Australian State Road Authorities have, from the initiation of A.R.R.B., been a continuing and valuable source of advice and consultation. In this way, therefore, exceedingly valuable advice has been obtained from individuals drawn from the State road authorities, local authorities, C.S.I.R.O., Australian universities, several Commonwealth departments, and from private companies and consultants.

Commonwealth Bureau of Roads

The Commonwealth Bureau of Roads is a Statutory Authority established under the provisions of the *Commonwealth Bureau of Roads Act* 1964. The Bureau consists of a full-time Chairman and two part-time Members appointed by the Governor-General and is served by a small secretariat. Broadly, the responsibilities of the Bureau are to advise the Commonwealth Government, through the Minister for Shipping and Transport, on matters relating to roads and road transport and government financial assistance in this area.

CIVIL AVIATION

Department of Civil Aviation

Control of civil aviation in Australia is exercised by the Department of Civil Aviation, which was established in 1939 to take over from the Civil Aviation Board the regulation of civil aviation in Australia. The Department's jurisdiction covers not only Australia but also Papua, New Guinea and areas of the Indian and Pacific Oceans. Year Books Nos 16, 19 and 38 trace the establishment of civil aviation control in Australia and the appropriate Acts of Parliament and Regulations under which this control is exercised. The present functions of the Department are shown in Year Book No. 51, pages 578–9, and further details about its operations are given in the annual reports to the Commonwealth Parliament by the Minister for Civil Aviation.

Regular air services within Australia

Interstate services. Scheduled interstate services with passenger and all-freight aircraft are provided by two airlines only, the private enterprise airline Ansett Airlines of Australia (a subsidiary of Ansett Transport Industries) and the Commonwealth-owned Trans-Australia Airlines. All principal routes are competitive, with both airlines providing equal capacities in accord with legislation passed by the Commonwealth Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreement Act* 1952–1961 and the *Airlines Equipment Act* 1958. The Airlines Equipment Act established the machinery for the achievement and maintenance of comparable, but not necessarily identical, aircraft fleets between T.A.A. and Ansett Airlines of Australia, and is designed to prevent the provision of excess aircraft capacity. The Airlines Agreement Act established the basis of control of the two-airline competitive system and extended this machinery to 1977.

In addition to purely interstate services, both Ansett Airlines of Australia and Trans-Australia Airlines operate routes to New Guinea and non-competitive intrastate routes in Australia. The Ansett Airlines of Australia non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located mainly within Queensland and Tasmania. In addition, Trans-Australia Airlines operate services within Papua-New Guinea in competition with another Ansett subsidiary, Ansett Airlines of Papua, and the independent Papuan Airlines.

At 30 June 1969 the Ansett Airlines of Australia fleet included four Boeing 727's, five DC-9's, three Electras, five Viscounts, eight Friendships, three Carvairs, a number of DC-4's and DC-3's and two helicopters. At the same date Trans-Australia Airlines operated a fleet of four Boeing 727's, five DC-9's, three Electras, four Viscounts, twelve Friendships and smaller aircraft.

Intrastate services. In addition to the intrastate services operated by Ansett Airlines of Australia and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Airlines of New South Wales and East-West Airlines), Adelaide (Airlines of South Australia), Perth (MacRobertson Miller Airlines), and Alice Springs (Connellan Airways). With the exception of Connellan Airways, which provides regular service to outback homesteads and communities, all of these are concerned primarily with traffic moving to and from the respective capital city. With the exception of the independently owned East-West Airlines and Connellan Airways, all regional airlines are subsidiaries of Ansett Transport Industries. The larger aircraft used by these regional airlines are Fellowships, Friendships and Convairs, supported by DC-3's. Connellan Airways uses smaller aircraft types.

Commuter services. These are not airline services but regular flights by charter firms with small single and twin-engined aircraft operating to fixed and published timetables. They provide regular air links between many centres, towns and country areas which are either not served by the major airlines or have no direct air service with their capital or nearest major provincial city. The first commuter service approved was for Opal Air Pty Ltd, of Coober Pedy (S.A.), to operate between Adelaide and the South Australian opal fields. At 30 June 1969 sixteen charter operators were operating commuter services in Australia. Details of the operations of these commuter services are excluded from the statistics shown in this section.

Internal operations. Particulars of the revenue operations of all regular internal air services during each of the years 1964–65 to 1968–69 are set out in the next table.

CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES AUSTRALIA(*a*), 1964-65 TO 1968-69

		1964–65(b)	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Hours flown	number	256,231	261,535	255,510	240,801	244,606
Miles flown	'000	52,323	55,020	56,759	56,724	60,348
Passengers—						
Embarkations	number	3,763,936	4,157,873	4,424,652	4,668,153	5,184,828
Passenger-miles	'000	1,639,087	1,831,360	1,972,469	2,125,314	2,401,783
Freight—						
Tons uplifted	short tons	69,959	76,079	82,056	85,063	89,947
Ton-miles(*c*)	'000	33,891	37,577	40,148	42,320	45,521
Mail—						
Tons uplifted	short tons	7,736	8,633	9,587	9,417	9,876
Ton-miles(*c*)	'000	4,074	4,587	5,144	5,174	5,498

(*a*) Includes flights of all Australian-owned airlines with the exception of those of Qantas Airways Limited between airports located within the Commonwealth. (*b*) Excludes, for flights between Australia and Papua-New Guinea, operations between airports located within the Commonwealth. (*c*) In terms of short tons.

Internal passenger embarkations and disembarkations

Traffic statistics have been compiled by aggregating for all individual airline flights the traffic loaded and unloaded at each airport. Flights between Australia and Papua-New Guinea and Australia and Norfolk Island are included. At ports where different flights connect, figures are overstated to the extent of the through traffic transferring between flights.

INTERNAL AIRWAYS PASSENGER EMBARKATIONS AND DISEMBARKATIONS AT PRINCIPAL AUSTRALIAN AIRPORTS
1964-65 TO 1968-69

Airport	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Sydney	2,086,571	2,244,218	2,435,284	2,641,147	2,933,795
Melbourne	1,587,833	1,748,478	1,880,860	2,043,542	2,278,032
Brisbane	754,296	814,097	854,370	937,660	1,009,060
Adelaide	618,101	738,402	770,408	863,652	930,207
Canberra	318,882	331,203	341,058	410,701	461,888
Perth	209,972	257,406	278,662	315,744	357,236
Hobart	158,287	167,077	178,314	182,459	196,335
Launceston	152,175	155,057	159,402	156,443	171,612
Townsville	137,079	152,384	145,161	188,761	168,247
Coolangatta	76,720	88,456	97,343	85,543	102,764
Cairns	83,503	83,996	86,598	92,048	101,031
Mackay	61,071	72,411	72,407	78,179	87,313
Darwin	38,804	49,131	57,557	65,535	78,165
Rockhampton	55,809	63,250	65,777	68,150	74,760
Devonport	45,401	48,089	55,213	61,250	68,125
Wynyard	34,966	40,617	51,932	54,888	57,132
Dubbo	34,904	41,903	44,852	49,856	51,775
Wagga	43,404	46,179	53,273	46,314	49,519
Tamworth	40,253	37,589	38,141	41,960	46,558
Kingscote	40,591	42,197	44,764	44,316	45,993
Port Lincoln	38,858	41,024	42,643	40,423	40,514
Cooma	50,757	44,098	44,060	44,486	40,396

International activity

International organisations. A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council, and the South Pacific Air Transport Council appeared in Year Book No. 37, and particulars of subsequent activity in the international field were included in No. 38. The International Civil Aviation Organization had a membership of 116 nations in June 1969. Australia has continued its position as a member of the Council, which it has held since I.C.A.O. was established in 1947. Further details will be found in Year Book No. 40 and earlier issues.

International agreements. Australia had air service agreements with twenty-two countries at 31 December 1969. They were Austria, Britain, Canada, Ceylon, France, Federal Republic of Germany, India, Indonesia, Iran, Ireland, Italy, Japan, Lebanon, Malaysia, Nauru, Netherlands, New Zealand, Singapore, South Africa, Thailand, United Arab Republic, and the United States of America. Under these agreements Australia is granted rights to operate services between Australia to and through the countries in question; these rights are exercised by Australia's international airline Qantas. In return, the designated airline of the other countries which are partners to these agreements is granted traffic rights in Australia. Australia also had air service arrangements with fifteen other countries at 31 December 1969. These were Burma, Cambodia, the Republic of China, Greece, Iraq, Laos, Mexico, the Philippines, Portugal, Saudi Arabia, Syria, Turkey, the Republic of Vietnam, and Yugoslavia. Qantas also operates services through several of these countries under these arrangements and in other cases overflies the country concerned.

International air services. In October 1969 fourteen overseas international airlines were operating regular scheduled services to Australia. These are: Air-India (India), Air New Zealand (New Zealand), Alitalia (Italy), British Overseas Airways Corporation (United Kingdom), Canadian Pacific Air Lines (Canada), Deutsche Lufthansa (Federal Republic of Germany), Garuda (Indonesia), Japan Air Lines (Japan), K.L.M. Royal Dutch Airlines (Netherlands), Malaysia-Singapore Airlines (Malaysia and Singapore), Pan-American World Airways (United States of America), Philippine Air Lines (Philippines), South African Airways (South Africa), and Union de Transports Aeriens (France). Trans-Australia Airlines operates between Darwin and Portuguese Timor under charter to Transportes Aereos de Timor. Qantas, Australia's international airline, operates a fleet of twenty-eight aircraft of which twenty-one are Boeing 707-338C jet aircraft. Qantas has also ordered four Boeing 747B superjet aircraft for delivery between August and September 1971. All the shares in Qantas Airways Limited are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1968–69 moving into and out of an area which embraces the Commonwealth of Australia, Papua-New Guinea, and Norfolk Island. These figures do not include traffic between Australia and Papua-New Guinea and Norfolk Island.

CIVIL AVIATION: INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(*a*), 1968-69

Type of traffic	*Aircraft movements*	*Passengers*	*Freight*	*Mail*
Traffic to Australia—			short tons	short tons
Qantas Airways Limited	2,680	204,801	8,198	918
Other airlines	3,549	247,913	8,094	1,915
All airlines	*6,229*	*452,714*	*16,292*	*2,833*
Traffic from Australia—				
Qantas Airways Limited	2,765	189,563	4,802	953
Other airlines	3,541	211,730	4,426	861
All airlines	*6,306*	*401,293*	*9,228*	*1,814*

(*a*) Australian mainland and adjacent Territories (Papua-New Guinea and Norfolk Island).

Particulars of revenue operations of Australian regular overseas services are shown in the following table. These operations include all stages of Qantas flights linking Australia with external territories and overseas countries, and stages external to the Commonwealth for flights of other Australian-owned airlines; they exclude flights over stages located within Papua-New Guinea (*see* footnote (*a*) to table following for 1964–65).

CIVIL AVIATION: OPERATIONS OF AUSTRALIAN REGULAR OVERSEAS SERVICES 1964-65 TO 1968-69

		1964–65(a)	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Hours flown	number	68,028	68,405	66,840	70,611	74,757
Miles flown	'000	28,126	29,635	29,201	31,914	33,591
Passengers—						
Embarkations	number	443,665	448,623	466,849	562,855	642,524
Passenger-miles	'000	1,527,039	1,569,513	1,608,868	1,970,008	2,247,241
Freight—						
Tons uplifted	short tons	10,293	11,451	12,259	13,733	18,537
Ton-miles(*b*)	'000	51,826	61,836	62,939	67,733	92,488
Mail—						
Tons uplifted	short tons	3,124	3,252	2,697	3,170	2,862
Ton-miles(*b*)	'000	19,891	20,914	16,500	19,209	15,680

(*a*) Includes, for flights between Australia and Papua-New Guinea, operations over stages located within the Commonwealth and within Papua-New Guinea. (*b*) In terms of short tons.

General aviation

General aviation activity, which covers all non-airline operations such as charter, aerial work and private flying, has grown rapidly throughout Australia in the post-war period so that now it is an important sector of the Australian aviation industry. In 1968, hours flown totalled 1.033m. compared with 341,594 hours flown by Australian airline aircraft. At 30 June 1969, aircraft employed in general aviation numbered 3,357.

Aerodromes

The number of aerodromes throughout Australia and its External Territories at 30 June 1969 was 681. One hundred and eighteen were owned by the Commonwealth Government and 563 by local authorities and private interests. Capital expenditure on aerodrome and building construction was $29.0 million in 1968–69. Maintenance expenditure on Commonwealth-owned aerodromes during 1968–69 was $3.75 million, and development grants to licensed aerodromes participating in the Local Ownership Plan totalled $750,000. The two major projects at Melbourne and Sydney are proceeding satisfactorily. The work at Sydney, which involves a major runway extension and a new international terminal (opened in May 1970), is estimated to cost $50 million. The new Melbourne airport is to cost $50 million including site acquisition. The projects as a whole are expected to be completed in 1970, but progressive use is being made of the facilities as they become available.

Airways facilities

A total of 365 navigational aids were in service in September 1969. The total includes 205 non-directional beacons (NDB), 96 distance measuring equipment (DME) (including 4 international standard units), 23 visual-aural ranges (VAR), 25 VHF Omni-directional ranges (VOR), 14 instrument landing systems (ILS) and 2 twin locator approach systems.

One hundred and seventeen aerodromes are now equipped with night landing facilities and forty-two visual approach slope indicators (VASIS) are now operating comprising thirty-six Australian designed 'T' systems and six ICAO Red-White systems.

Five long range surveillance radars are in operation.

Aircraft on the Australian register

CIVIL AVIATION: AIRCRAFT ON AUSTRALIAN REGISTER, 30 JUNE 1969

Type of aircraft	*Number of engines*				*Total aircraft*
	One	*Two*	*Three*	*Four*	
Fixed-wing powered aircraft—					
Turbo-jet	. .	14	8	22	44
Turbo-prop	6	68	. .	26	100
Piston-engined 20,000 lb and over maximum take-off weight .	. .	52	. .	15	67
Piston-engined under 20,000 lb maximum take-off weight .	2,879	370	6	3	3,258
Helicopters	89	1	. .	. .	90
Total powered aircraft . .	*2,974*	*505*	*14*	*66*	*3,559*
Gliders	. .	. .	. .	. .	240

Particulars of powered aircraft according to manufacturer and air navigation class in which registered, and further details of gliders, may be found in the bulletin *Transport and Communication*, No. 60, 1968–69.

Civil aviation registrations, licences, etc., in force in Australia

At 30 June 1969 there were 3,559 aircraft registered in Australia (including 240 gliders) and 1,951 registered aircraft owners. There were also, at 30 June 1969, 25,783 pilots' licences in force of which 10,218 were private pilots' licences, 3,357 commercial pilots' licences, and 10,512 student pilots' licences. Flight radio-telephone operators' licences numbered 16,331. The number of aerodromes in Australia at 30 June 1969 totalled 491 of which 108 were government and 383 licensed, i.e. under the control of a municipality, shire, station owner, etc. There were also 13 flying boat bases in operation.

Accidents and casualties

CIVIL AVIATION: ACCIDENTS INVOLVING CASUALTIES(*a*)
AUSTRALIA(*b*), 1964-65 TO 1968-69

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Number	17	37	38	36	17
Persons killed	15	29	66	47	47
Persons seriously injured	7	28	24	29	20

(*a*) Accidents involving civil aircraft which resulted in death or serious injury. Excludes parachutists killed on contact with earth after an uninterrupted fall. (*b*) Excludes accidents outside Australia involving aircraft on the Australian register.

POSTS; INTERNAL AND OVERSEAS TELECOMMUNICATION SERVICES RADIOCOMMUNICATION STATIONS

In this division particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated. The Central Office of the Postmaster-General's Department is located in Melbourne, Victoria.

Postmaster-General's Department—General

Under the provisions of the *Post and Telegraph Act* 1901–1968 the Postmaster-General's Department is responsible for the control and operation of postal, telegraphic and telephonic services throughout Australia. The Postmaster-General's Department is also responsible for the provision and operation of the transmitters and technical facilities, other than studio equipment, required for broadcasting and television services by the Australian Broadcasting Commission (*see* pages 387–89), and, in conjunction with the Overseas Telecommunications Commission (*see* pages 385–87), with whom there is close co-operation, provides facilities for communication with overseas countries. Subsidiary to its major activities, the Postmaster-General's Department performs a number of important functions for other Commonwealth and State departments including the collection of broadcast and television licence fees, war service and repatriation repayments, the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, the collection of land tax and the over-the-counter distribution of a variety of official forms.

Research

The Postmaster-General's Department maintains its own research facilities as part of the headquarters organisation in Melbourne. The P.M.G. Research Laboratories had an establishment in 1969 of 390 including 128 professional staff, mainly engineers, physicists, chemists and metallurgists. The main responsibilities of the laboratories are to conduct research and development in telecommunications theory and practice, particularly as applying to the Australian region; to appraise new developments in telecommunication equipment; and to design apparatus and systems required for special applications in the telecommunications and mail handling networks in Australia in cases where these needs could not be met from commercial sources.

Postal facilities

The following table shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square miles in each State and in Australia at 30 June 1969.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES
30 JUNE 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Post offices—							
Official	524	330	230	177	158	53	1,472
Non-official	1,794	1,570	956	720	468	344	5,852
Total post offices	*2,318*	*1,900*	*1,186*	*897*	*626*	*397*	*7,324*
Square miles of territory per office	134	46	562	1,000	1,559	66	405
Inhabitants per office	1,983	1,781	1,491	1,352	1,512	979	1,679
Inhabitants per 100 square miles	1,481	3,851	265	135	97	1,473	414

Employment

PERSONS PROVIDING POST OFFICE SERVICES: CENTRAL OFFICE AND STATES 30 JUNE 1969

	Central Office	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Official full-time staff(*a*)—								
Permanent officers	2,102	25,422	18,081	11,172	8,147	5,808	2,691	73,423
Temporary and exempt employees .	256	13,319	9,124	2,924	1,802	2,156	662	30,243
Total	*2,358*	*38,741*	*27,205*	*14,096*	*9,949*	*7,964*	*3,353*	*103,666*
Other(*b*)—								
Non-official postmasters and postmistresses	..	1,743	1,572	948	721	466	347	5,797
Other staff at non-official offices .	..	489	587	295	205	66	35	1,677
Telephone office-keepers . .	..	177	63	308	86	183	15	832
Mail contractors (including persons employed to drive vehicles) . .	..	1,883	898	1,247	311	323	167	4,829
Total	..	*4,292*	*3,120*	*2,798*	*1,323*	*1,038*	*564*	*13,135*

(*a*) Persons directly under the control of the Department. Excludes 3,201 part-time staff. (*b*) Persons not directly under the control of the Department. Includes persons employed, either full-time or part-time, under contract or in return for payments appropriate to work performed.

Financial operations—Postmaster-General's Department

The financial tables which follow allow for the changed accounting arrangements introduced by the Postmaster-General's Department following amendment of the Post and Telegraph Act in 1968.

Earnings

The following table shows the earnings of the Postmaster-General's Department as taken from successive Profit and Loss statements.

POSTMASTER-GENERAL'S DEPARTMENT: EARNINGS, BY SOURCE AUSTRALIA, 1959-60 TO 1968-69

($'000)

	Postal service				*Telecommunications service*					
Year	*Postages*	*Money order and postal order fees*	*Commission on agency services*	*Other earnings*	*Telephone rentals*	*Telephone calls*	*Telegrams*	*Leased telegraph services*	*Other earnings (a)*	*Total*
1959–60	79,935	2,257	2,458	1,872	46,561	97,843	9,830	3,515	6,902	251,173
1960–61	85,611	2,348	2,482	2,407	52,341	105,453	9,536	4,057	8,059	272,295
1961–62	87,886	2,366	2,420	1,949	56,008	106,955	9,664	4.283	8,881	280,412
1962–63	91,835	2,501	3,501	2,008	59,913	117,570	9,831	4,844	10,936	302,939
1963–64	97,842	2,638	3,976	2,121	64,422	129,736	10,641	5,172	12,746	329,293
1964–65	103,032	2,722	4,243	2,194	82,175	142,722	11,423	5,847	15,687	370,045
1965–66	107,402	2,771	4,277	2,296	93,856	154,304	11,639	6,144	18,585	401,274
1966–67	110,317	2,919	4,300	2,452	100,823	171,100	11,868	7,018	20,691	431,488
1967–68	127,748	3,178	4,406	2,847	108,293	211,812	14,172	7,478	22,722	502,656
1968–69	142,770	3,400	5,591	3,175	116,974	245,571	14,711	8,145	26,872	567,208

(*a*) Includes fees for advertisements in telephone directories, proceeds of sales of fixed assets, telephone service connection fees and telex call fees.

Expenses

This table shows the operating and maintenance expenses of the Postmaster-General's Department as taken from successive Profit and Loss Statements.

POSTMASTER-GENERAL'S DEPARTMENT: EXPENSES, BY SOURCE AUSTRALIA, 1959-60 TO 1968-69

($'000)

	Postal service			*Telecommunications service*			
Year	*Operating maintenance and general*	*Carriage of mail*	*Depreciation, superannuation, long service leave and interest*	*Operating and general*	*Maintenance of plant*	*Depreciation, superannuation, long service leave and interest*	*Total*
1959–60 . .	56,890	22,034	6,141	53,144	53,746	58,361	250,317
1960–61 . .	59,907	23,669	7,282	53,662	55,457	66,791	266,768
1961–62 . .	63,594	23,978	7,803	55,437	59,086	74,436	284,335
1962–63 . .	65,107	25,304	8,384	57,483	55,318	92,868	304,465
1963–64 . .	69,655	26,682	9,284	62,651	58,290	103,325	329,887
1964–65 . .	75,987	28,710	10,111	69,637	60,269	121,118	365,833
1965–66 . .	84,868	31,143	11,077	74,451	66,489	133,370	401,398
1966–67 . .	95,775	32,395	15,398	83,154	74,063	152,205	452,991
1967–68 . .	107,016	33,114	18,209	92,614	83,645	177,707	512,305
1968–69 . .	106,682	35,678	21,277	101,861	95,022	198,651	559,171

Profit or Loss

The following table shows the net results of the Department's operations for the year 1968–69 together with summarised particulars for the year 1967–68.

POSTMASTER-GENERAL'S DEPARTMENT: CONSOLIDATED STATEMENT OF PROFIT AND LOSS, AUSTRALIA, 1967-68 AND 1968-69

($'000)

	1968–69			*1967–68*
	Postal service	*Telecommunications service*	*All services*	*All services*
Earnings	*154,936*	*412,272*	*567,208*	*502,656*
Expenses—				
Operating, maintenance and general . .	142,360	196,883	339,243	316,389
Depreciation	3,213	100,479	103,692	94,068
Superannuation	7,681	12,690	20,371	17,259
Long service leave	2,693	4,423	7,116	6,153
Total expenses	*155,947*	*314,475*	*470,422*	*433,869*
Profit or loss before interest	−1,011	97,797	96,786	68,787
Interest	7,689	81,059	88,749	78,436
Profit or loss after interest	**−8,701**	**16,738**	**8,037**	**−9,648**

Minus sign (−) denotes loss.

Fixed assets, Postmaster-General's Department

POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS 1968-69

($'000)

Class of plant	*Value at 1 July 1968*	*Adjustments to values*	*Additions during year*	*Instalments of plant written out*	*Value at 30 June 1969*
Telecommunications plant	1,920,821	..	256,499	19,433	(*a*)2,157,887
Postal plant	16,204	..	1,454	90	17,568
Engineers' moveable plant	40,758	..	5,778	2,187	44,349
Motor vehicles	32,842	−3,087	6,639	4,837	31,556
Other plant and equipment	38,768	..	4,619	2,270	41,117
Buildings	215,173	..	30,477	..	(*b*)245,650
Land	22,025	..	2,200	24	24,201
Total	**2,286,591**	**−3,087**	**307,666**	**28,841**	**2,562,329**

(*a*) Includes plant under construction valued at $102,215,499. (*b*) Includes buildings under construction valued at $20,338,568.

Minus sign (−) denotes reduction in values of assets.

Postal services

Mail delivery points

MAIL DELIVERY POINTS: STATES, 30 JUNE 1969

State	*Postmen's delivery*	*Roadside delivery*	*Private boxes*	*Private mail bag services*
New South Wales	1,359,726	62,819	82,421	5,837
Victoria	910,677	36,578	47,773	5,680
Queensland	441,141	37,465	40,597	4,628
South Australia	340,529	1,157	29,188	2,856
Western Australia	229,544	14,913	23,115	810
Tasmania	81,193	1,970	7,724	1,587
Australia	**3,362,810**	**154,902**	**230,818**	**21,398**

Postal articles handled

The following two tables show the number of postal articles handled by the Australian Post Office, according to their State of origin. Each article is counted once only irrespective of the number of times it may be handled in transit.

POSTAL ARTICLES HANDLED(*a*): STATES, 1968-69

('000)

State	Letters (*b*)	Newspapers and packets (*c*)	Parcels (*d*)	Registered articles (*e*)	Letters (*b*)	Newspapers and packets (*c*)	Parcels (*d*)	Registered articles (*e*)
	Posted for delivery within Australia				*Posted for delivery overseas*			
New South Wales	738,759	159,624	8,766	3,376	44,733	12,670	428	1,004
Victoria	575,773	100,878	5,473	2,307	33,230	4,098	256	547
Queensland	284,281	32,866	2,631	1,435	11,727	1,003	43	64
South Australia	178,428	17,680	1,501	752	8,930	1,214	65	62
Western Australia	153,580	13,753	1,039	687	8,218	985	40	84
Tasmania	53,853	8,537	261	320	457	80	5	3
Australia	**1,984,674**	**333,338**	**19,671**	**8,876**	**107,295**	**20,050**	**837**	**1,765**
	Received from overseas				*Total postal matter dealt with*			
New South Wales	74,016	33,245	689	1,356	857,508	205,539	9,883	5,735
Victoria	58,494	10,274	477	623	667,497	115,250	6,207	3,478
Queensland	7,396	4,865	165	34	303,404	38,734	2,839	1,533
South Australia	5,807	3,412	119	35	193,165	22,306	1,685	849
Western Australia	5,118	6,204	119	56	166,916	20,942	1,198	828
Tasmania	2,206	808	16	2	56,516	9,425	282	325
Australia	**153,037**	**58,808**	**1,584**	**2,106**	**2,245,006**	**412,196**	**22,092**	**12,748**

(*a*) Number of distinct articles handled. (*b*) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (*c*) Includes newspapers and postal articles not included in letter mail. (*d*) Includes registered, cash on delivery and duty parcels. (*e*) Includes registered articles other than parcels.

POSTAL ARTICLES HANDLED(*a*): AUSTRALIA, 1964-65 TO 1968-69

('000)

Year	Letters(*b*)	Newspapers and packets(*c*)	Parcels(*d*)	Registered articles(*e*)	Total postal articles handled
1964–65	2,032,287	380,178	18,156	12,190	2,442,811
1965–66	2,123,338	401,578	18,327	12,886	2,556,128
1966–67	2,232,881	417,980	19,196	13,097	2,683,154
1967–68	2,203,089	411,091	20,783	12,908	2,647,871
1968–69	2,245,006	412,196	22,092	12,748	2,692,042

(*a*) Number of distinct articles handled. (*b*) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (*c*) Includes newspapers and postal articles not included in letter mail. (*d*) Includes registered, cash on delivery and duty parcels. (*e*) Includes registered articles other than parcels.

During 1968–69 the cost of the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Service, was as follows: road, $11,181,902; railway, $4,527,645; sea, $645,853; air—internal, $4,746,175, overseas, $14,576,520; total, $35,678,095.

Money orders and postal orders

The issue of money orders and postal orders is regulated by sections 74–9 of the *Post and Telegraph Act* 1901–1968. The maximum amount for which a single money order payable within Australia may be obtained is $80, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent by any one person to a person or persons outside Australia is $50 a week. A postal order is not available for a sum larger than eight dollars. The following table shows the number and value of money orders and postal orders issued in Australia on each of the years 1964–65 to 1968–69 and the income therefrom which has accrued to the Post Office.

MONEY ORDERS AND POSTAL ORDERS(*a*): TRANSACTIONS, AUSTRALIA
1964-65 TO 1968-69

Year	*Money orders(b)*			*Postal orders(a)*		
	Issued		*Total commission received*	*Issued*		*Fee*
	Number	*Value*		*Number*	*Value*	
	'000	$'000	$'000	'000	$'000	$'000
1964–65 . .	(*c*)12,176	376,356	2,103	15,338	16,737	618
1965–66 . .	(*c*)12,634	407,275	2,200	15,010	16,184	604
1966–67 . .	(*c*)12,594	434,942	2,332	13,499	18,454	629
1967–68 . .	(*c*)11,373	438,668	2,544	(*d*)12,364	22,149	657
1968–69 . .	9,672	209,868	2,637	13,525	27,262	772

(*a*) Postal orders replaced postal notes on 1 June 1966. (*b*) Money orders issued for payment in Australia and overseas. (*c*) Includes official money orders used in bringing to account telephone accounts and collections on War Service Homes repayments. (*d*) Postal orders for $5, $6, $7 and $8 were introduced in October 1967. Until then the highest denomination was $4.

Of the total money orders issued in Australia during 1968–69, 9,223,363 valued at $206,020,143 were payable in Australia, and 448,966 valued at $3,847,895 were payable overseas. Of the total money orders paid in Australia during 1968–69, 9,633,920 ($207,873,861) were issued in Australia, and 197,244 ($3,614,993) were issued overseas.

Of the total postal orders paid in Australia during 1968–69 (13,729,761 valued at $27,700,293), 10,333,785 ($21,690,035) were paid in the State in which issued, and 3,395,976 ($6,010,258) were paid in States other than those in which issued.

Internal telecommunication services

A review of the development of telegraph services in Australia up to 1921 appeared in Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. Internal telecommunication operations now comprise telephone, telegraph, and telegraph exchange (telex) services.

Wire and pole mileages

At 30 June 1969 there were 20,972,767 single wire miles of cable and 1,160,006 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires are mounted on 110,943 miles of pole routes.

Coaxial cable and broadband relay systems

In recent years trunk telephone, telegraph and television channels have been increasingly provided by coaxial cable and radio relay systems. Broadband radio relay systems and coaxial cables are an alternative means of providing transmission facilities, each radio bearer being similar in carrying capacity to a coaxial tube. At 30 June 1969 there were 12,919 tube miles of coaxial cable and 26,400 bearer miles of radio relays in operation.

Telephone services in operation

The following table shows the number of services in operation in each State at 30 June 1969 classified according to type of service, type of exchange to which connected, and location. Telephone services connected to exchanges located within fifteen miles of the Sydney and Melbourne and ten miles of the Brisbane, Adelaide, Perth, and Hobart General Post Offices are defined as being within a metropolitan area.

TELEPHONE SERVICES IN OPERATION: STATES, 30 JUNE 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Type of service—							
Ordinary exchange services	852,515	691,356	275,044	198,177	145,703	63,907	2,226,702
Duplex services	2,218	. .	92	16	178	126	2,630
Party line services	4,221	1,933	2,954	1,278	1,208	197	11,791
Private branch exchange services	103,573	69,410	24,304	21,828	16,299	4,787	240,201
Public telephones	11,449	7,463	4,716	2,875	2,303	1,101	29,907
Connected to—							
Automatic exchanges	871,513	703,088	252,132	195,980	147,119	60,315	2,230,147
Manual exchanges	102,463	67,074	54,978	28,194	18,572	9,803	281,084
Located in—							
Metropolitan areas	609,893	508,913	147,319	144,180	112,510	25,664	1,548,479
Country areas	364,083	261,249	159,791	79,994	53,181	44,454	962,752
Total	**973,976**	**770,162**	**307,110**	**224,174**	**165,691**	**70,118**	**2,511,231**

TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1965 TO 1969

	30 June—				
Services connected to—	*1965*	*1966*	*1967*	*1968*	*1969*
Metropolitan exchanges—					
Automatic	1,244,926	1,316,456	1,383,475	1,456,179	1,548,479
Country exchanges—					
Automatic	414,636	467,844	523,697	594,977	681,668
Manual	350,562	336,078	327,531	307,681	281,084
All exchanges—					
Automatic	1,659,562	1,784,300	1,907,172	2,051,156	2,230,147
Manual	350,562	336,078	327,531	307,681	281,084
Total services	**2,010,124**	**2,120,378**	**2,234,703**	**2,358,837**	**2,511,231**

Telephone instruments

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1965 TO 1969

('000)

30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
1965	1,107	860	341	256	164	82	2,811
1966	1,182	905	357	272	176	86	2,978
1967	1,276	958	377	287	191	89	3,178
1968	1,371	1,020	398	302	208	93	3,392
1969	1,444	1,080	423	321	232	98	3,599
Number at 30 June 1969 per 100 population	31.4	31.9	23.9	26.5	24.5	25.3	29.3

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA 1964-65 TO 1968-69

Year	Effective paid local calls		Trunk line calls		
	Total '000	Per service number	Total '000	Per service number	Total calls '000
1964–65	2,043,000	1,016	106,500	53	2,149,500
1965–66	2,081,000	1,008	116,600	56	2,197,600
1966–67	2,179,000	1,001	134,200	62	2,313,200
1967–68	2,295,000	999	151,600	66	2,446,600
1968–69	2,442,000	1,004	172,200	71	2,614,200

Subscriber trunk dialling (S.T.D.) facilities were introduced during the year 1961–62 from Canberra to the Sydney network and from Warragul (Victoria) to Melbourne. At the end of June 1969 subscriber trunk dialling was in operation at 659 exchanges, connected to approximately 1,670,695 services.

Internal telegraphs

Telegrams can be lodged at any post office, telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be despatched from any subscriber's telephone or telegraph exchange (telex) equipment. The number of telegrams of various types transmitted within the Commonwealth during the years 1964–65 to 1968–69 is set out hereunder.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1964-65 TO 1968-69 ('000)

Year	Ordinary (a)	Urgent	Press	Letter-grams	Meteorological service	Service	Total telegrams
1964–65	18,302	532	96	65	912	643	20,550
1965–66	18,605	550	100	59	1,005	717	21,036
1966–67	19,019	494	78	47	1,014	719	21,372
1967–68	18,723	440	68	38	1,060	719	21,047
1968–69	18,543	440	68	33	1,068	718	20,869

(a) Includes radiograms.

Teleprinter exchange service (telex)

Particulars of the operations of the teleprinter exchange network, which are additional to the telegraph traffic shown above, are as follows:

TELEPRINTER EXCHANGE NETWORK (TELEX) SERVICES AND INTERNAL CALLS, AUSTRALIA 1963-64 TO 1968-69

Year	Services at end of year	Internal calls during year
1963–64	1,815	1,492,024
1964–65	2,179	1,867,701
1965–66	2,444	2,161,353
1966–67	3,154	3,592,610
1967–68	4,054	5,435,413
1968–69	5,067	7,362,084

Overseas telecommunication services

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance and operation of telecommunication services between Australia and other countries, with ships at sea and to and between Australia's external Territories.

The Commission was established under the *Overseas Telecommunications Act* 1946. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunications services of the British Commonwealth countries concerned. (Details of overseas communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Year Book No. 37, pages 220–4.)

In 1966 the Commonwealth countries completed a review of the machinery for their collaboration in telecommunications and the period since then has been one of transition from the arrangements which were established by the Commonwealth Telegraphs Agreement of 1948 to those of the Commonwealth Telecommunications Organisation recommended by the 1966 Commonwealth Telecommunications Conference. On 31 March 1969, the Commonwealth Telegraphs Agreements of 1948 and 1963 were formally terminated and from 1 April 1969 the new Commonwealth Telecommunications Organisation became fully operative. Also with effect from 1 April 1969 the Commonwealth Telecommunications Organisation Financial Agreement entered into force providing financial arrangements previously provided under the Commonwealth Telegraphs Agreements.

In association with the Post Office within Australia and with communication carriers in other Commonwealth and foreign countries, the Commission provides public message telegram, telephone, telex, photo-telegram, leased circuit and television services to most countries and places throughout the world.

To meet Australia's increasing demand for overseas communication channels, and because of limitations to performance and capacity inherent in telegraph cables and high frequency radio systems, the Commission, in partnership with the overseas telecommunications authorities of Britain, Canada and New Zealand, installed a large capacity telephone cable across the Pacific Ocean, connecting Australia, New Zealand and Canada via Suva and Honolulu. The cable (COMPAC) was opened in December 1963 and forms part of a British Commonwealth large capacity cable scheme, in which a complementary cable between Britain and Canada (CANTAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii and into the European network at London.

The south-east Asia cable project (SEACOM), extending the large capacity telephone cable system from Sydney to Singapore and Kuala Lumpur via Cairns, Madang, Guam, Hong Kong, and Kota Kinabalu, was opened for service on 30 March 1967.

The Commonwealth Cable Management Committee, comprising representatives of Britain, Canada, Australia, New Zealand, Malaysia and Singapore, administers COMPAC and SEACOM.

In 1964 a number of countries, including Australia, agreed to establish a global commercial communications satellite system at an estimated cost, for the space segment, of $US200m. Broadly the term 'space segment' describes the orbiting satellites and the tracking, control, command, and related facilities required to support their operation. Australia, represented by the Commission, is one of the eighteen representatives on the Interim Communications Satellite Committee (ICSC) which is the management body of the sixty-nine nation International Telecommunications Satellite Consortium (INTELSAT).

In December 1968, the Interim Communications Satellite Committee completed its report to INTELSAT member Governments on permanent arrangements to supersede those which had been provided for in the 1964 Interim Agreement. As prescribed in that Agreement, an intergovernmental Conference, to consider the Committee's report and to define the permanent arrangements for the International Telecommunications Satellite Consortium (INTELSAT), was held in Washington during February/March 1969. The Conference did not reach agreement on the new arrangements and resumed in Washington in February 1970.

In March 1968 a satellite earth station at Moree, New South Wales, owned and operated by the Commission, commenced commercial communications, including a capability for television transmissions/receptions, through an INTELSAT II satellite launched in January 1967 and positioned in stationary orbit 22,300 miles above the equator. This station was the first in Australia constructed as a 'standard' station of the INTELSAT network and carries direct circuits between Australia and other countries in the Pacific Region. Since 15 February 1969 these services have been provided through a Pacific Ocean INTELSAT III satellite. The link with Japan, the first by satellite from Australia to an Asian country, was established for commercial operation on 14 March 1969.

The Commission's small satellite earth station at Carnarvon continued to provide a direct link between Western Australia and the United States of America for the National Aeronautics and Space Administration (NASA).

On 1 February 1969 the Carnarvon earth station commenced service as a tracking, telemetry and command (T.T. & C.) station for INTELSAT satellites. In the period up to 1 October 1969 it performed this function on a part-time basis while also providing communications for the National Aeronautics and Space Administration. From 1 October 1969 when the new standard earth station at Carnarvon became available for commercial services, the original station was fully devoted to T.T. & C.

The T.T. & C. function provides for four such stations to be spaced around the world so that any INTELSAT satellite can be viewed and controlled no matter where it may be. These stations keep a continuous check of the position of each satellite and its functioning by means of signals transmitted by the satellite. When required, signals are transmitted to a satellite to control the direction of its antenna and to change its orbital position. During launches, these stations transmit the commands which fire the satellite motor to place it in final orbit. The Interim Communications Satellite Committee selected the Carnarvon station for this purpose after calling competitive tenders from earth station owners in the coverage zone of the Indian Ocean and Pacific Ocean satellites.

An additional satellite earth station for the Commission, at Ceduna, South Australia, was officially opened in February 1970. This station, will operate through an Indian Ocean INTELSAT III satellite to earth stations in the United Kingdom, Europe, Africa, the Middle East and Asia.

International telecommunication traffic

Particulars of the volume of international telegraph services, originating and terminating in Australia, during the years ended 31 March 1968 and 1969 are shown in the following table.

INTERNATIONAL TELEGRAPH SERVICES: AUSTRALIA YEARS ENDED 31 MARCH 1968 AND 1969

('000 words)

	Words transmitted—					
	From Australia		*To Australia*		*Total*	
Class of traffic	*1967–68*	*1968–69*	*1967–68*	*1968–69*	*1967–68*	*1968–69*
Letter	27,503	28,367	22,469	24,537	49,972	52,905
Ordinary	23,463	24,718	21,535	23,927	44,999	48,645
Press	4,350	4,411	4,079	2,867	8,429	7,278
Greetings	1,543	1,454	1,959	1,940	3,502	3,393
Urgent	1,315	1,506	1,158	1,364	2,472	2,870
Other	1,721	925	3,078	2,674	4,799	3,599
Total	**59,894**	**61,381**	**54,278**	**57,308**	**114,173**	**118,690**

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1968 and 1969.

INTERNATIONAL TELECOMMUNICATION TRAFFIC OTHER THAN TELEGRAPHIC AUSTRALIA, YEARS ENDED 31 MARCH 1968 AND 1969

		Transmissions					
		From Australia		*To Australia*		*Total*	
Service		*1967–68*	*1968–69*	*1967–68*	*1968–69*	*1967–68*	*1968–69*
Telephone	paid minutes	2,647,942	3,316,074	2,796,753	3,883,813	5,444,695	7,199,887
Telex	paid minutes	1,287,383	1,757,719	1,303,051	1,725,280	2,590,434	3,482,999
Phototelegrams	pictures	1,360	1,477	5,642	5,819	7,002	7,296

Coastal stations

The Overseas Telecommunications Commission operates fifteen coastal radio stations at points around the Australian coast, three on the Papua-New Guinea coast, and one at Norfolk Island. Three of these stations are operated in conjunction with the Department of Civil Aviation. During the year ended 31 March 1969 the coastal radio service handled 6,096,191 paid words to ships and 3,504,773 words from ships. Ship calls over the radiotelephone service extended over 80,416 paid minutes.

Radiocommunication stations authorised

At 30 June 1969 there were 117,040 civil radiocommunication stations authorised for operation in the Commonwealth and its Territories. Of these, 5,292 were stations established at fixed locations, 9,266 were land stations which were established at fixed locations for communication with mobile stations, 96,519 were mobile stations and 5,963 amateur stations. Particulars of broadcasting stations and broadcast listeners' licences are shown on pages 388 and 390 respectively.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act* 1942–1969 and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service, and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board. Licence fees for commercial broadcasting and television stations are payable under the *Broadcasting Stations Licence Fees Act* 1964–1966 and the *Television Stations Licence Fees Act* 1964–1966 respectively.

Particulars of the composition, functions and responsibilities of the Australian Broadcasting Control Board are shown in Year Book No. 51, pages 594–5. The functions of the Board as shown therein were subsequently amended by repealing the Board's power to regulate the establishment and operation of networks. Pursuant to the *Broadcasting and Television Act* 1942–1969, the Australian Broadcasting Commission now consists of nine members, one of whom shall be a woman.

Broadcasting services

The National Broadcasting Service

In sound broadcasting the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department.

Technical facilities. At 30 June 1969 the National Broadcasting Service comprised seventy-nine transmitting stations, of which seventy-one were medium frequency and eight high frequency.

The medium-frequency transmitters operate in the broadcast band 525 to 1,605 kilocycles a second. The high-frequency stations, using frequencies within the band three to thirty megacycles a second, provide services to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme channels are utilised to link national broadcasting stations in the capital cities of Australia, and, when necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1969 fifty-nine of the Australian medium-frequency stations were situated outside the six State capital cities. Two additional country stations had been authorised but had not commenced to operate at 30 June 1969.

Programme facilities. The programmes of the Australian Broadcasting Commission cover a wide range of activities. The proportion of broadcasting time allocated to the various types of programme during 1968–69 was as follows: classical music, 24.1 per cent; entertainment, 28.4 per cent; news, 8.9 per cent; sporting, 6.4 per cent; light music, 2.6 per cent; spoken word, 6.7 per cent; drama and features, 3.9 per cent; education, 3.5 per cent; Parliament, 4.2 per cent; religious, 3.0 per cent; children's programmes, 2.4 per cent; rural, 2.5 per cent; and presentation, 3.4 per cent. Further particulars of the operations of the Australian Broadcasting Commission in respect of music, drama and features, youth education, talks, rural broadcasts, news, and other activities are shown in Year Book No. 51, pages 596–7.

The Commercial Broadcasting Service

Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year. The fee payable for a licence is $50 on the grant of the licence, and thereafter $50 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Broadcasting Stations Licence Fees Act* 1964–1966, during the preceding financial year—1 per cent up to $1,000,000; 2 per cent $1,000,001 to $2,000,000; 3 per cent $2,000,001 to $4,000,000; and 4 per cent over $4,000,000.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton and two at Lyndhurst, Victoria, which provide the overseas service known as 'Radio Australia'. As in the case of the National Broadcasting Service, these stations are maintained and operated by the Postmaster-General's Department, and their programmes are arranged by the A.B.C. The programmes, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to south-east Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

Broadcasting stations

BROADCASTING STATIONS: STATES AND TERRITORIES, 30 JUNE 1969

Type of station	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
National—									
Medium frequency	19	5	16	8	13	4	4	2	71
High frequency	1	3	2	..	2	..	..	..	8
Overseas (high frequency)	..	9	..	..	..	..	..	..	9
Commercial (medium frequency)	37	20	25	8	14	8	1	1	114
Total	**57**	**37**	**43**	**16**	**29**	**12**	**5**	**3**	**202**

Tables showing the call sign, location, frequency, and aerial power of national and commercial broadcasting stations in operation at 30 June 1969 are shown in *Transport and Communication*, Bulletin No. 60.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department. The first national station (ABN Sydney) commenced regular transmission on 5 November 1956. At 30 June 1969 thirty-nine stations were operating, excluding twenty-two translator stations. Five additional national television stations and thirty-eight low powered stations (in remote localities) had been authorised but had not commenced to operate by that date.

The television programmes provided by the Australian Broadcasting Commission cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30 June 1969 was as follows: drama, 30.1 per cent; public interest, 12.9 per cent; sporting, 10.6 per cent; news, 6.9 per cent; variety and acts, 6.1 per cent; education, 17.9 per cent; musical performances, 1.5 per cent; religious, 1.8 per cent; rural, 0.9 per cent; special arts and aesthetics, 5.7 per cent; presentation, 5.6 per cent. Further particulars of the operation of the National Television Service in respect of talks, drama and features, music, rural services, education, news and other activities are shown in Year Book No. 51, pages 598–9. Transmission time for the year ended 30 June 1969 totalled 230,532 hours.

The Commercial Television Service

Commercial television stations are operated under licences granted and renewed by the Postmaster-General. The first commercial station (TCN Sydney) commenced regular transmission on 16 September 1956. At 30 June 1969 forty-five television stations were operating.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is $200 for the first year and thereafter $200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Television Stations Licence Fees Act* 1964–1966, during the preceding financial year—1 per cent up to $1,000,000; 2 per cent $1,000,001 to $2,000,000; 3 per cent $2,000,001 to $4,000,000; and 4 per cent over $4,000,000.

Television stations

During the year ended 30 June 1969 no new national television station commenced regular transmissions. The following commercial television stations commenced regular transmissions during the year: New South Wales—BKN Channel 7, Broken Hill; Queensland—MVQ Channel 6, Mackay; Western Australia—GSW Channel 9, Southern Agricultural Area. The following table shows the number of television stations in operation at 30 June 1969.

TELEVISION STATIONS: STATES AND AUSTRALIAN CAPITAL TERRITORY
30 JUNE 1969

Type of station and location	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Total*
National—								
Metropolitan	1	1	1	1	1	1	1	**7**
Country	12	7	7	2	3	1	..	**32**
Total, National	*13*	*8*	*8*	*3*	*4*	*2*	*1*	*39*
Commercial—								
Metropolitan	3	3	3	3	2	1	1	**16**
Country	11	6	7	2	2	1	..	**29**
Total, Commercial	*14*	*9*	*10*	*5*	*4*	*2*	*1*	*45*
All stations	**27**	**17**	**18**	**8**	**8**	**4**	**2**	**84**

Tables showing the call sign, location, frequencies, polarisation, aerial power, and weekly hours of transmission of National and Commercial television stations in operation at 30 June 1969 are shown in *Transport and Communication*, Bulletin No. 60.

Broadcast listeners' and television viewers' licences

Broadcast listeners', television viewers', and combined receiving licences are issued at post offices in accordance with the provisions of the *Broadcasting and Television Act* 1942–1969, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A Broadcast listener's licence or a television viewer's licence, whichever is appropriate, authorises the operation of any broadcast receiver or any television receiver, which is: *(a)* in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and is ordinarily kept at that address; *(b)* installed in a vehicle which is ordinarily in the possession of the holder, or a member of his family, and is ordinarily kept at that address when not in use. A person who has both broadcast and television receivers at the one address may take out a combined receiving licence, provision for which was introduced by legislation effective from 1 April 1965.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school, and at a concession rate to certain classes of pensioners. Receivers provided for the use of inmates of an approved institution (including a hospital) are covered by an appropriate licence held by the institution. Persons residing in Zone 2 may also be granted a broadcast listener's licence at a reduced rate. Zone 1 is the area within 250 miles of specified broadcasting stations and Zone 2 is the remainder of Australia.

Each broadcast or television receiver let out on hire (except under a hire purchase agreement) must be covered by a hirer's licence held by the person or firm from whom the receiver is hired. The keeper of a lodging house (which includes a hotel, motel, boarding house, or any other premises where lodging or sleeping accommodation is provided for reward) must take out a lodging house licence for each broadcast or television receiver provided by the proprietor in any room or part of the lodging house occupied or available for occupation by lodgers.

The fees payable for the various classes of licence at 30 June 1969 were as follows:

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES RATES

Licence		*Ordinary rate*	*Pensioner rate*
		$	$
Broadcast listener's licence and hirer's licence for a broadcast receiver	Zone 1	6.50	1.00
	Zone 2	3.30	0.70
Lodging house licence for a broadcast receiver	Zone 1	6.50	..
	Zone 2	3.30	..
Television viewer's licence and hirer's licence for a television receiver		14.00	3.00
Lodging house licence for a television receiver		14.00	..
Combined receiving licence		20.00	4.00

Numbers of broadcast listeners' and television viewers' licences

BROADCAST LISTENERS' LICENCES IN FORCE(*a*): STATES, 1965 TO 1969

30 June—	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.(c)*	*W.A.*	*Tas.*	*Aust.*
1965	849,291	644,618	343,401	269,040	175,443	75,849	2,357,642
1966	929,119	716,594	340,687	281,747	169,709	88,095	2,525,951
1967	950,788	712,813	340,477	278,069	173,571	82,322	2,538,040
1968	934,877	724,711	371,637	290,051	181,356	77,228	2,579,860
1969	952,634	728,647	382,869	297,877	189,633	78,552	2,630,212

(*a*) Includes short-term hirers' licences and combined broadcast listeners' and television viewers' licences. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

TELEVISION VIEWERS' LICENCES IN FORCE(*a*): STATES, 1965 TO 1969

30 June—	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
1965	787,507	620,996	243,660	208,642	123,741	60,079	2,044,625
1966	843,103	662,595	277,182	233,726	142,881	66,187	2,225,674
1967	927,038	690,857	302,575	254,504	159,048	71,113	2,405,135
1968	948,153	726,518	335,913	268,595	165,632	74,581	2,519,392
1969	993,145	747,080	367,289	280,420	183,307	78,216	2,649,457

(*a*) Includes short-term hirers' licences and combined broadcast listeners' and television viewers' licences. (*b*) Includes Australian Capital Territory.

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1969 are: New South Wales, 814,831; Victoria, 647,814; Queensland, 288,926; South Australia, 224,995; Western Australia, 146,797; Tasmania, 66,320; Australia, 2,189,683.

Short-term hirers' licences (included above) at 30 June 1969 were: New South Wales, 72,784; Victoria, 26,188; Queensland, 31,438; South Australia, 35,387; Western Australia, 18,548; Tasmania, 3,149; Australia, 187,494.

Revenue received from broadcast and television licence fees

The following table shows the revenue received from broadcast listeners' licence fees, television viewers' licence fees and from fees for combined licences during the years 1964–65 to 1968–69.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES
STATES, 1964-65 TO 1968-69
($'000)

Year	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Aust.*
1964–65	12,400	9,811	4,230	3,586	2,124	1,006	33,157
1965–66	13,401	10,335	4,545	3,832	2,285	1,047	35,445
1966–67	14,244	10,840	4,951	4,101	2,571	1,127	37,835
1967–68	14,554	11,265	5,321	4,219	2,666	1,157	39,182
1968–69	16,700	12,747	6,306	4,930	3,127	1,314	45,125

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory in respect of broadcast licence fees.

TRAVEL

An article outlining the history and growth of travel and the structure of tourist organisations in Australia, prepared by the Australian National Travel Association, appeared in Year Book No. 52, pages 1158–84. The following pages contain statistics of travel to and from Australia, together with some descriptive matter. Current statistics on overseas travel are published in monthly and quarterly (mimeographed) statements *Overseas Arrivals and Departures.*

Overseas travel

Statistics about travellers to and from Australia are classified in the first instance by the length of time they intend to stay or have been staying in Australia or by the length of time away from Australia; this classification distinguishes between permanent and temporary (i.e. short term and long term) movement.

Statistics of *permanent* arrivals and departures (immigrants and emigrants) are analysed in Chapter 7—Population.

Statistics of temporary *arrivals and departures* which are in the nature of visitor statistics are included in this chapter on travel. They comprise two main categories of travellers.

(i) *Short term.* Those who intend to stay or have actually stayed in Australia (overseas visitors) or in a country overseas (Australian residents) for less than a year.

(ii) *Long term.* Those who intend to stay or have actually stayed in Australia (overseas visitors) or in a country overseas (Australian residents) for a year or more, but not permanently.

Visitor statistics (overseas visitors and Australian residents)

In addition to the classification between short-term and long-term travellers mentioned above, visitor statistics are further classified as between Australian residents departing for, or returning from a visit overseas and overseas visitors arriving for, or departing after a visit in Australia.

The *short-term* visitors are more numerous than long-term visitors, and have come to be regarded as 'Tourists' by many users of these statistics. Short-term refers basically to travellers, who intend to, or actually do, spend a period of less than twelve months in a country abroad or in Australia. The short-term classification includes Australian troops (regardless of length of their stay abroad) and persons who come to Australia or go abroad for paid work or to study or for holidays or for other reasons (as long as their intended or actual length of stay is less than one year). It excludes all crew, and persons who arrive in and depart from Australia on the same ship's voyage or on the same flight (variously called direct transit passengers or 'through' passengers) and passengers on short pleasure cruises in the south-west Pacific commencing and finishing in Australia on ships not then engaged in regular voyages. However, it includes persons who, on arrival, declare their purpose of visiting Australia to be 'in transit', as long as a change of ship or flight takes place.

Short-term travel excludes visitors to Australia and Australian residents on visits abroad if their stay in Australia or in a country abroad is one year or more.

Australian residents visiting abroad may be away from Australia for more than a year but still be included as short-term as long as their intended stay in any one country abroad is not for a year or more.

As from October 1967 when United States troops commenced coming to Australia on rest and recreation leave their arrival and departure have also been included with statistics of short-term travellers. For statistical purposes they are classified as short-term visitors travelling by air for holiday purposes and their country of residence and country of embarkation or disembarkation is shown as 'Asia—other'. During the period October 1967 to December 1969, 155,419 United States troops arrived in Australia on rest and recreation leave.

The *long-term* classification relates to the arrival of visitors or temporary departure of Australian residents who state their intention of staying in Australia or in a country abroad respectively for twelve months or more, and the departure of visitors or return of Australian residents who have stayed in Australia or in a country abroad respectively for twelve months or more.

The number of persons visiting Australia and Australian residents visiting overseas during each year from 1965 to 1969 are shown in the following table.

VISITOR STATISTICS—SUMMARY, AUSTRALIA
1965 TO 1969

	Overseas Visitors				*Australian Residents*			
	Short-term		*Long-term*		*Short-term*		*Long term*	
Year	*Arriving in Australia*	*Departing from Australia*	*Arriving in Australia*	*Departing from Australia*	*Departing from Australia*	*Returning to Australia*	*Departing from Australia*	*Returning to Australia*
1965 . . .	173,328	178,933	17,497	12,429	161,692	160,544	46,313	26,260
1966 . . .	187,262	194,876	19,234	11,999	183,161	181,770	54,321	28,292
1967 . . .	221,821	231,762	21,637	12,801	217,746	223,038	52,148	35,655
1968 . . .	299,889	311,181	23,473	12,617	251,880	252,773	51,386	36,387
1969 . . .	361,277	372,747	26,867	15,602	288,805	288,990	59,027	38 308

In addition to the basic classification of visitors shown above, certain other characteristics of visitors are also ascertained. These characteristics are as follows.

(i) For all travellers: sex, age, marital status, nationality, country of birth, occupation, intended and actual length of stay, purpose of journey and mode of transport.

(ii) For arrivals: country of last residence, country of embarkation, State of intended residence and State of disembarkation.

(iii) For departures: country of intended residence, country of disembarkation, State of residence in Australia and State of embarkation.

Many of the categories of visitors shown in the previous tables are cross-classified by the characteristics listed above and the resulting visitor statistics are shown in considerable detail in the quarterly bulletin *Overseas Arrivals and Departures* and in the annual bulletin *Demography*. Certain unpublished information is available on request. Selected visitor statistics are shown in the following tables.

The sex, marital status and age of visitors arriving and of Australian residents departing are shown below.

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY BY MARITAL STATUS, AGE AND SEX: AUSTRALIA, 1969

	Short-term			*Long-term*		
Characteristics	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
OVERSEAS VISITORS ARRIVING						
Marital status						
Never married	116,607	39,148	155,755	10,591	6,761	17,352
Married	123,929	61,356	185,285	4,682	3,758	8,440
Widowed or divorced .	6,038	14,199	20,237	352	723	1,075
Age (years)						
0–14	12,344	11,987	24,331	2,168	2,044	4,212
15–24	82,878	18,351	101,229	7,249	4,820	12,069
25–44	89,275	32.186	121,461	4,859	2,791	7,650
45–64	49,996	38,031	88,027	1,057	1,098	2,155
65 and over	12,081	14,148	26,229	292	489	781
Total	**246,574**	**114,703**	**361,277**	**15,625**	**11,242**	**26,867**

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY BY MARITAL STATUS, AGE AND SEX: AUSTRALIA, 1969—*continued*

Characteristics	*Short-term*			*Long-term*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Marital status						
Never married	55,970	43,948	99,918	17,378	15,855	33,233
Married	104,687	66,012	170,699	11,817	12,196	24,013
Widowed or divorced	4,835	13,353	18,188	542	1,239	1,781
Age (years)						
0–14	13,011	12,716	25,727	6,860	6,339	13,199
15–24	30,604	24,489	55,093	6,692	10,194	16,886
25–44	65,691	34,922	100,613	12,919	9,537	22,456
45–64	46,574	40,426	87,000	2,677	2,544	5,221
65 and over	9,612	10,760	20,372	589	676	1,265
Total	**165,492**	**123,313**	**288,805**	**29,737**	**29,290**	**59,027**

For visitors arriving, information is also available as to their country of residence (i.e. in which they last stayed for one year or more); and for Australian residents departing by their country of disembarkation. No information is available as to the country in which Australian residents going abroad in the short-term classification intend to spend most time.

OVERSEAS VISITORS ARRIVING, BY COUNTRY OF RESIDENCE(*a*) AND MODE OF TRANSPORT: AUSTRALIA, 1969

Country of residence(a)	*Short-term*			*Long-term*		
	By sea	*By air*	*Total*	*By sea*	*By air*	*Total*
Africa—						
Commonwealth countries	219	1,493	1,712	57	193	**250**
South Africa	537	2,623	3,160	193	109	**302**
Other	35	600	635	12	214	**226**
America—						
Canada	938	6,578	7,516	395	673	**1,068**
Other Commonwealth countries	22	347	369	8	29	**37**
United States of America	1,652	48,430	50,082	218	3,543	**3,761**
Other	25	1,313	1,338	11	244	**255**
Asia—						
Ceylon, India and Pakistan	46	2,409	2,455	2	441	**443**
Hong Kong	307	4,331	4,638	38	288	**326**
Malaysia and Singapore	451	8,836	9,287	61	1,611	**1,672**
Other Commonwealth countries	21	177	198	7	27	**34**
Japan	284	8,740	9,024	12	663	**675**
Other	125	95,667	95,792	26	1,640	**1,666**
Europe—						
United Kingdom and Ireland	5,391	29,293	34,684	1,273	2,030	**3,303**
Other Commonwealth countries	70	347	417	12	23	**35**
France	98	2,121	2,219	7	167	**174**
Germany	290	3,694	3,984	96	222	**318**
Greece	44	692	736	18	222	**240**
Italy	139	2,354	2,493	32	340	**372**
Netherlands	466	3,466	3,932	149	151	**300**
Other	335	5,632	5,967	114	695	**809**
Oceania—						
Fiji	280	3,451	3,731	17	135	**152**
New Zealand	4,355	78,240	82,595	2,520	7,279	**9,799**
Papua and New Guinea	539	24,829	25,368	5	443	**448**
Other Commonwealth countries	494	1,836	2,330	23	101	**124**
Other	155	6,460	6,615	8	70	**78**
Total	**17,318**	**343,959**	**361,277**	**5,314**	**21,553**	**26,867**

(*a*) Country in which the visitor was last resident for a period of one year or more.

AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY, BY COUNTRY OF DISEMBARKATION(a) AND MODE OF TRANSPORT: AUSTRALIA, 1969

Country of disembarkation(a)	*Short-term*			*Long-term*		
	By sea	*By air*	*Total*	*By sea*	*By air*	*Total*
Africa—						
Commonwealth countries	7	618	625	1	176	177
South Africa	1,008	2,497	3,505	679	330	1,009
Other	831	71	902	2,121	23	2,144
America—						
Canada	1,332	816	2,148	541	267	808
Other Commonwealth countries	47	90	137	49	21	70
United States of America (excluding Hawaii)	1,280	9,888	11,168	871	1,614	2,485
Hawaii	1,681	10,109	11,790	39	1,314	1,353
Other	276	902	1,178	369	133	502
Asia—						
Ceylon, India and Pakistan	72	3,830	3,902	60	514	574
Hong Kong	1,267	13,952	15,219	120	2,632	2,752
Malaysia and Singapore	4,938	24,203	29,141	376	5,989	6,365
Other Commonwealth countries	18	17	35	15	37	52
Japan	6,918	1,366	8,284	114	59	173
Other	1,093	24,315	25,408	24	1,423	1,447
Europe—						
United Kingdom and Ireland	12,573	8,989	21,562	9,349	1,426	10,775
Other Commonwealth countries	527	738	1,265	860	59	919
Greece	1,020	3,425	4,445	2,448	1,306	3,754
Italy	6,439	8,817	15,256	6,875	1,696	8,571
Netherlands	442	2,052	2,494	416	94	510
Other	888	3,631	4,519	1,088	446	1,534
Oceania—						
Fiji	618	18,046	18,664	35	943	978
New Zealand	4,565	66,378	70,943	1,035	2,633	3,668
Papua and New Guinea	477	21,142	21,619	63	7,563	7,626
Other Commonwealth countries	287	6,595	6,882	197	175	372
Other	650	7,064	7,714	28	381	409
Total	**49,254**	**239,551**	**288,805**	**27,773**	**31,254**	**59,027**

(a) Refers to the intended country of disembarkation from the particular ship or aircraft which takes the passenger from Australia.

The following Table shows statistics of overseas visitors to Australia and Australian residents temporarily departing overseas classified by the stated purpose of their journey.

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY BY STATED PURPOSE OF JOURNEY AND SEX: AUSTRALIA, 1969

Purpose of journey	*Short-term*			*Long-term*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
OVERSEAS VISITORS ARRIVING						
In transit	26,499	15,986	42,485	..	..	..
Business	49,525	4,201	53,726	3,524	1,159	4,683
Holiday	153,136	84,692	237,828	3,106	3,300	6,406
Education	6,844	3,180	10,024	2,573	1,515	4,088
Other and not stated	10,570	6,644	17,214	6,422	5,268	11,690
Total	**246,574**	**114,703**	**361,277**	**15,625**	**11,242**	**26,867**
AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY						
Business	48,753	5,901	54,654	6,855	3,850	10,705
Holiday	86,699	109,632	196,331	14,115	15,539	29,654
Education	2,862	1,557	4,419	2,248	1,561	3,809
Other and not stated	27,178	6,223	33,401	6,519	8,340	14,859
Total	**165,492**	**123,313**	**288,805**	**29,737**	**29,290**	**59,027**

Short-term travel

Other statistics about overseas visitors to Australia and Australian residents visiting abroad on a short-term basis are shown in the following two tables.

OVERSEAS VISITORS ARRIVING BY COUNTRY OF RESIDENCE AND INTENDED LENGTH OF STAY AND AUSTRALIAN RESIDENTS DEPARTING BY COUNTRY OF DISEMBARKATION AND INTENDED LENGTH OF STAY: AUSTRALIA, 1969

	Overseas visitors arriving—Intended length of stay						*Australian residents departing—Intended length of stay*					
Country of residence (visitors) and country of disembarkation (residents)	*Under 1 week*	*1week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Indefinite, not stated etc.*	*Total*	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Indefinite, not stated etc.*	*Total*
Africa—												
Commonwealth countries	496	356	400	322	138	1,712	5	58	271	253	38	625
South Africa . . .	971	932	626	469	162	3,160	8	414	1,465	1,334	284	3,505
Other	192	140	110	103	90	635	. .	11	47	550	294	902
America—												
Canada . . .	1,144	3,201	1,566	1,136	469	7,516	3	226	1,099	650	170	2,148
Other Commonwealth countries . . .	50	141	110	50	18	369	1	15	46	66	9	137
United States of America—												
excluding Hawaii .	13,428	25,067	6.660	3,505	1,422	50.082	105	2,931	4,183	3,040	909	11,168
Hawaii . . .							215	3,248	5,209	2,408	710	11,790
Other	290	459	344	184	61	1,338	4	128	458	456	132	1,178
Asia—												
Ceylon, India, Pakistan .	551	703	483	455	263	2,455	51	1,088	1,239	1,300	224	3,902
Hong Kong . . .	1,033	1,389	1,059	581	576	4,638	550	3,101	6,256	4,284	1,028	15,219
Malaysia and Singapore .	1,887	2,872	1,673	1,905	950	9,287	982	9,233	8.837	5,742	4,347	29,141
Other Commonwealth countries . . .	62	38	36	42	20	198	. .	1	1	27	6	35
Japan	2,941	3,748	1,283	460	592	9,024	41	1,695	5,837	416	295	8,284
Other	88,122	3,297	2,319	1,260	794	95,792	458	3,339	4,643	2,771	14,197	25,408
Europe—												
United Kingdom and Ireland . . .	5,907	9,662	9,640	7.035	2,440	34,684	60	1,253	5,100	13,191	1,958	21,562
Other Commonwealth countries . . .	37	56	227	71	26	417	. .	1	312	790	162	1,265
Greece	96	130	89	286	135	736	14	126	560	2,833	912	4,445
Italy	628	615	382	563	305	2,493	39	633	2,539	9,865	2,180	15,256
Netherlands . . .	693	498	1,141	1,016	584	3,932	7	180	1,233	911	163	2,494
Other	3,076	3,518	2,190	2,395	991	12,170	11	417	1,717	2,008	366	4,519
Oceania—												
Fiji	855	1,097	895	592	292	3,731	982	14,303	1,720	916	743	18,664
New Zealand . .	17,709	43,684	9,168	6,092	5,942	82,595	5,618	47,096	10,423	4,482	3,324	70,943
Papua and New Guinea .	3,360	5,080	8,837	7,252	839	25,368	2,493	8,386	5,887	2,229	2,624	21,619
Other Commonwealth countries	483	613	534	555	145	2,330	492	5,423	449	186	332	6,882
Other	1,247	1,671	2,414	631	652	6,615	491	4,867	1,280	751	325	7,714
Total . . .	**145.258**	**108,967**	**52,186**	**36,960**	**17,906**	**361,277**	**12,630**	**108,173**	**70,811**	**61,459**	**35,732**	**288,805**

The seasonal pattern of overseas short-term travel to and from Australia is shown in the next table which provides monthly figures of arrivals and departures during 1969.

OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS: ARRIVALS AND DEPARTURES BY MONTH OF ARRIVAL OR DEPARTURE AND MODE OF TRANSPORT AUSTRALIA, 1969

	Overseas visitors						*Australian residents*					
	Arriving			*Departing*			*Departing*			*Returning*		
Month	*By sea*	*By air*	*Total*	*By sea*	*By air*	*Total*	*By sea*	*By air*	*Total*	*By sea*	*By air*	*Total*
January .	1,212	27,271	28,483	1,795	35,827	37,622	3,557	16,284	19,841	3,090	32,647	35,737
February .	1,454	27,128	28,582	2,105	28,559	30,664	5,029	13,337	18,366	2,614	18,094	20 708
March .	2,733	29,360	32,093	2 613	30,583	33,196	6,891	18,520	25,411	4,107	17,440	21,547
April. .	1,046	25,836	26,882	1,857	27,784	29,641	4,356	20,547	24,903	2,202	16,163	18,365
May . .	1,234	26,357	27,591	2,446	29,352	31,798	6,031	23,104	29,135	3,200	18,359	21,559
June . .	847	23,043	23,890	1,146	24,000	25,146	3,583	20,794	24,377	2,841	16,916	19,757
July . .	1,045	24,609	25,654	1,402	23,880	25,282	2,981	19,289	22,270	3,310	18,981	22,291
August .	738	29,607	30,345	1,695	29,326	31,021	3,555	22,480	26,035	1,848	23,840	25,688
September .	1,468	26,593	28,061	1,349	28,656	30,005	1,998	15,074	17,072	4,001	27,341	31,342
October .	1,705	30,313	32,018	1,843	28,948	30,791	4,534	16,282	20,816	4,949	22,439	27,388
November .	1,407	33,307	34,714	1,608	33,413	35,021	2,500	16,525	19,025	3,935	19,620	23,555
December .	2,429	40,535	42,964	1,537	31,023	32,560	4,239	37,315	41,554	4 401	16,652	21,053
Total .	**17,318**	**343,959**	**361,277**	**21,396**	**351,351**	**372,747**	**49,254**	**239,551**	**288,805**	**40,498**	**248,492**	**288,990**

Long-term travel

Many long-term visitors travel for business and education purposes and intend to follow an occupation in the country visited during their stay in Australia or overseas. This is evident from the statistics shown in the table on page 394 which classify visitors according to the purpose of their journey. Statistics of the occupations of long-term visitors arriving in Australia and Australian residents departing overseas (long-term) are therefore of some general interest and are shown in the following table.

OVERSEAS VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING, BY OCCUPATION AND SEX: AUSTRALIA, 1969

	Overseas visitors arriving			*Australian residents departing*		
Occupation group	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Professional, technical, and related workers	2,149	1,566	3,715	4,544	4,439	8,983
Administrative, executive, and managerial workers	1,021	78	1,099	1,412	171	1,583
Clerical workers	606	1,906	2,512	1,906	5,049	6,955
Sales workers	620	223	843	861	492	1,353
Farmers, fishermen, hunters, timber getters, and related workers	721	18	739	576	29	605
Miners, quarrymen, and related workers	95	..	95	190	..	190
Workers in transport and communication	626	84	710	855	196	1,051
Craftsmen and production-process workers	3,287	260	3,547	5,587	956	6,543
Labourers	598	..	598	3,763	..	3,763
Service (protective and other), sport, and recreation workers	782	442	1,224	857	918	1,775
Occupation inadequately described or not stated	701	141	842	801	150	951
Persons not in the work force—						
Children and students	4,161	3,198	7,359	7,834	7,125	14,959
Other	258	3,326	3,584	551	9,765	10,316
Total	**15,625**	**11,242**	**26,867**	**29,737**	**29,290**	**59,027**

Direct transit travellers

As indicated on page 391, all the preceding figures in this section exclude persons who arrive in and depart from Australia on the same ship's journey or on the same flight. Persons thus excluded are not normally considered visitors to Australia. For instance, settlers or other persons going to New Zealand, Papua and New Guinea, or other neighbouring countries, or leaving such countries may travel through Australia on their way. On the other hand, all persons visiting Australia on cruise vessels, which may remain in Australian waters for a considerable time, are also treated as direct transit travellers and are thus excluded from the figures shown on previous pages. Information about direct transit passengers on ships calling at Australian ports is given in the next table.

OVERSEAS SHIPPING PASSENGERS IN DIRECT TRANSIT(*a*) AUSTRALIA, 1968 AND 1969

	1968		*1969*	
Approximate period from first to last Australian port (days)	*Passengers*	*Passenger days*	*Passengers*	*Passenger days*
Less than 3	2,503	3,538	3,989	6,601
3 and less than 5	6,376	20,377	4,237	12,990
5 and less than 7	3,914	23,300	5,960	34,001
7 and less than 9	7,179	54,128	5,735	43,840
9 and less than 11	5,850	54,463	4,549	41,376
11 and less than 22	381	6,398	1,341	15,958
22 and over	212	6,408	109	3,395
Total	**26,415**	**168,612**	**25,920**	**158,161**

(*a*) Persons who arrived in and departed from Australia on the same ship's voyage.

Sea cruises from Australia

Excluded from the foregoing statistics are passengers on short pleasure cruises in the south-west Pacific, commencing and finishing in Australia on ships not then engaged in regular voyages. During 1969 forty-one such cruises, carrying 38,803 passengers, were completed.

Tourist organisation

The Australian Tourist Commission was established by the Commonwealth Government under the *Australian Tourist Commission Act* 1967. Its objectives are the encouragement of visits to Australia, and travel in Australia by people from other countries. The seven man Commission comprises a chairman appointed by the Commonwealth Government; two appointees to represent private industry, selected by the Commonwealth Government from a panel of names put forward by the Australian National Travel Association; two other voting members, at least one of whom is an officer of the Public Service of the Commonwealth; and two non-voting representatives nominated by the State Governments.

For 1969–70 the Commonwealth Government provided $2,100,000 to the Commission, to be spent, mainly in overseas countries, on advertising campaigns and in associated promotional activities. The Commission brings to Australia travel agents, writers, photographers and other publicists to see at first hand what the country has to offer visitors. It takes no part in the detailed organisation of tourist activities in Australia but is a member of the Tourist Directors' Council and the Minister in Charge of Tourist Activities is a member of the Tourist Ministers' Council, together with the six States, the Northern Territory and the Territory of Papua and New Guinea. It has its Head Office in Melbourne and branch offices in London, Frankfurt, New York, San Francisco, Los Angeles, Auckland, Tokyo and Sydney.

The Australian National Travel Association, which is described on pages 1161–2 of the special article Travel and Tourism in Year Book No. 52, was formerly responsible, *inter alia*, for the promotion overseas of Australia as a tourist destination. Since the creation of the Australian Tourist Commission, the Association concentrates on the encouragement of the growth and development of travel and tourism within Australia, and the improvement of the standard and variety of facilities and services provided by private enterprise for the use of both domestic and overseas visitors. It acts as a co-ordinating body for its members, provides a clearing house for information, and conducts surveys into aspects of local tourist activity. The Association is governed by a Board representative of travel and tourist interests. The Commonwealth Government is no longer represented on the Board. The Association's office is located in Sydney.

CHAPTER 13

WELFARE SERVICES

This chapter relates to welfare services other than those concerned specifically with education, health and repatriation. The latter are dealt with, in the main, in the relevant chapters of this Year Book. Apart from a summary of government expenditure on welfare services, the chapter is devoted to a description in some detail of the services provided by the Commonwealth. For information on the many important welfare services provided by State and local governments, especially in the fields of child and Aboriginal welfare, reference should be made to the Year Books or Statistical Registers of the States and the annual reports of the State departments concerned. Information on pension and superannuation schemes provided for government and semi-government employees, mine workers, parliamentarians, and employees of private business is included in the chapter Private Finance. *See also* Year Book No. 55, 1969, page 456, for short descriptions of the National Safety Council of Australia, lifesaving organisations, the Royal Humane Society and the Order of St John.

There are numerous welfare services provided by charitable and other non-government institutions and organisations. There are institutions providing shelter and caring for needy, aged, infirm or handicapped persons, neglected children, destitute persons, wayward boys and girls, and the like. Many organisations, too, provide aid in kind (food, clothing, etc.), auxiliary medical and nursing services, and other assistance to relieve suffering and hardship. Considerable work is also done by such organisations in the rehabilitation or establishment in the community of various types of people, such as prisoners and migrants, and in the prevention and alleviation of cruelty and maltreatment of any sort. Comprehensive information regarding the activities of such organisations is not available.

Further information on subjects dealt with in this chapter is included in the annual bulletins *Australian National Accounts; Commonwealth Finance;* and *State, Territory and Local Government Authorities' Finance and Government Securities.* Current and summarised information on Commonwealth social services is contained in the *Quarterly Summary of Australian Statistics* and the *Monthly Review of Business Statistics.*

Commonwealth expenditure on welfare services

This section deals with various government payments for the relief of the aged, indigent, infirm, widowed and unemployed, assistance to families, Aboriginal welfare, etc. For summary statements of cash payments to persons made by public authorities under various functional heads, *see Australian National Accounts* and the other annual bulletins mentioned above. Expenditure by State governments on certain welfare services and on Aboriginal welfare is shown on page 417. Commonwealth expenditure on welfare services is, in the main, financed through the National Welfare Fund. A brief description of the operation of this trust fund and details of the itemised welfare expenditure are provided in the following sections. The cost of other welfare services is met from general or special departmental appropriations; other trust funds; or specific purpose grants to the States. Information on the major items which are not paid from the National Welfare Fund is included on pages 415–18. Chapter 18—Public Finance and, in more detail, the bulletin *Commonwealth Finance* provide analyses of Commonwealth expenditure by function and economic type. The cost of administering each Commonwealth benefit is not separately compiled.

The National Welfare Fund

The National Welfare Fund was established by the *National Welfare Fund Act* 1943 to finance a scheme of national welfare and has operated from 1 July 1943. At the Fund's commencement it was used to finance funeral benefits and maternity allowances, but other social and health benefits were made a charge on the fund from time to time, and at present expenditure on all benefits except repatriation, telephone rental concessions and a few minor social and health benefits is met from the fund. The fund is used only to finance the benefits themselves; it is not used to finance the cost of administering the benefits, or of capital works associated with the benefits. Since the contributions to the fund from Consolidated Revenue equal expenditure from the fund the balances in the fund grow each year by the interest on investment of these balances.

NATIONAL WELFARE FUND: EXPENDITURE, INTEREST AND BALANCES 1964-65 TO 1968-69

($'000)

Year	*Expenditure (a)*	*Interest on investments*	*Balance in fund at end of year*
1964–65	890,366	4,199	422,581
1965–66	941,574	4,241	426,822
1966–67	1,031,117	4,284	431,106
1967–68	1,075,049	4,327	435,433
1968–69	1,162,350	4,370	439,803

(*a*) Met by equal contributions to the fund from consolidated revenue.

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND STATES, TERRITORIES, ETC., 1968-69

($'000)

Service, etc.	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Abroad*	*Total*
Social services—										
Age and invalid pensions	217,581	140,538	90,079	50,828	39,404	16,768	1,459	1,437	493	558,587
Widows' pensions . .	25,589	18,090	10,677	6,815	4,786	2,465	280	309	70	69,080
Funeral benefits . .	640	407	237	144	96	42	..	4	..	1,571
Maternity allowances .	2,761	2,281	1,144	688	648	267	77	91	3	7,960
Child endowment(*a*) .	66,430	54,132	28,676	18,162	15,540	6,710	1,430	2,113	69	193,263
Unemployment benefits .	2,627	2,246	2,474	1,286	309	297	19	9	..	9,268
Sickness benefits . .	2,187	1,473	801	461	389	166	24	30	..	5,531
Special benefits(*b*) . .	657	838	249	126	97	55	4	3	..	2,031
Sheltered employment allowances	101	..	..	151	37	..	..	..	..	288
Commonwealth Rehabilitation Service(*c*) . .	735	590	341	304	208	76	..	6	..	2,260
States Grants (Deserted Wives)	570	..	158	139	215	67	..	..	..	1,149
Other	127	241	..	..	..	..	..	..	..	368
Total social services .	*320,005*	*220,836*	*134,835*	*79,106*	*61,729*	*26,913*	*3,294*	*4,003*	*635*	*851,356*
Total health services(*d*) .	116,734	73,997	42,868	28,409	23,338	9,116	395	833	..	(*e*)297,918
Rental losses(*f*) . .	..	..	60	..	..	..	..	..	..	60
Home savings grants . .	4,325	4,379	1,950	1,177	760	305	3	118	..	13,015
Grand total . .	**441,064**	**299,212**	**179,714**	**108,692**	**85,827**	**36,334**	**3,691**	**4,955**	**635**	**(*e*)1,162,350**

(*a*) Includes payments for student children aged 16 to 20 years. (*b*) Includes special benefits paid to migrants in Commonwealth centres or hostels awaiting their first placement in employment in Australia. (*c*) Includes expenditure on training scheme for widow pensioners—commenced September 1968. (*d*) Details of expenditure from the National Welfare Fund on health services are included in Chapter 14—Public Health, page 423. (*e*) Includes $2,226,000 for some health services not allocable by State and Territory. (*f*) Contributions to States under the *Commonwealth and State Housing Agreement Act* 1945 for losses on rental housing.

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND TOTAL, 1964-65 TO 1968-69

Service, etc.	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*	
					Amount	*Per head*
	$'000	$'000	$'000	$'000	$'000	$
Social services—						
Age and invalid pensions	426,597	442,355	481,840	513,984	558,587	45.89
Widows' pensions	47,044	50,017	56,438	61,061	69,080	5.68
Funeral benefits	866	1,050	1,334	1,338	1,571	0.13
Maternity allowances	7,294	7,159	7,294	7,349	7,960	0.65
Child endowment(*a*)	172,830	176,432	199,282	187,920	193,263	15.88
Unemployment, sickness and special benefits(*b*)	14,540	15,557	19,044	18,832	16,830	1.38
Sheltered employment allowances	. .	. .	. .	104	288	0.02
Commonwealth Rehabilitation Service(*c*)	1,604	1,660	1,844	1,944	2,260	0.19
States Grants (Deserted Wives)	. .	. .	. .	201	1,149	0.09
Other	. .	. .	. .	. .	368	0.03
Total social services	*670,774*	*694,229*	*767,076*	*792,734*	*851,356*	*69.94*
Health services(*d*)—						
Total	*208,113*	*233,785*	*252,014*	*268,972*	*297,918*	*24.48*
Rental losses(*f*)	130	213	142	44	60	. .
Homes savings grants	11,349	13,346	11,885	13,299	13,015	1.07
Grand total	**890,366**	**941,574**	**1,031,117**	**1,075,049**	**1,162,350**	**95.50**

For footnotes (*a*), (*b*), (*c*), (*d*) and (*f*) *see* table on page 400.

Commonwealth social services

Under the provisions of section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:

'(xxiii) Invalid and old age pensions:

'(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:'.

The latter paragraph was inserted in the Constitution after being accepted by the electors at a referendum in 1946.

Before 1947, Commonwealth social service benefits were paid under various Acts. On 1 July 1947, with the passage of the *Social Services Consolidation Act* 1947, all Acts providing social service benefits were amalgamated. The Act is at present styled the *Social Services Act* 1947–1969.

Reciprocal social services agreements with other countries

New Zealand. An agreement between the Governments of Australia and New Zealand for reciprocity in social services came into operation on 3 September 1943 and was amended from 1 July 1949. The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment, and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up a permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

United Kingdom. A reciprocal agreement on social services between United Kingdom and Australia came into operation on 1 January 1954. Amendments became effective from 1 April 1958 and 1 October 1962. Under the current agreement residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to the United Kingdom for permanent residence are treated in the United Kingdom as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

Social service benefits provided

The social service benefits provided by the Commonwealth Government under the *Social Services Act* 1947–1969, and the date on which each came into operation, are:

Age pension	1 July 1909
Wives' and children's allowances for age pensioners	14 October 1965
Invalid pension	15 December 1910
Guardians' allowances for widowers and other unmarried age and invalid pensioners with children in their care	14 October 1965
Wives' and children's allowances for pensioners who are invalids	8 July 1943
Special payments to a surviving pensioner	10 October 1968
Widows' pensions	30 June 1942
Supplementary assistance (age, invalid and widows' pensions)	15 October 1958
Widows' pensions—children's allowances	2 October 1956
Funeral benefit	1 July 1943
Maternity allowance	10 October 1912
Child endowment	1 July 1941
Child endowment—student children	14 January 1964
Unemployment benefit	1 July 1945
Sickness benefit	1 July 1945
Special benefit	1 July 1945
Sheltered employment allowance	30 June 1967
Commonwealth Rehabilitation Service	10 December 1948
Training scheme for widow pensioners	27 September 1968

Age and invalid pensions

Age pensions are payable to men, sixty-five years of age and over, and women, sixty years of age and over, who have lived in Australia continuously for at least ten years, which need not be immediately prior to the date of claim for a pension. If a person has completed five years', but not ten years', continuous residence, and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Any periods of absence during which a person's home remains in Australia, and absences in certain other circumstances, are counted as residence, and any absence in an external Territory of the Commonwealth, while not counting as residence, does not interrupt continuity of residence in Australia. Residence in New Zealand or the United Kingdom may be treated as residence in Australia.

Invalid pensions are payable to persons, sixteen years of age and over, who have lived in Australia for a continuous period of five years (including certain absences) at any time, and who are permanently incapacitated for work to the extent of at least eighty-five per cent, or permanently blind. If the incapacity or blindness first occurred outside Australia, except during a temporary absence, the residence qualification is the same as for an age pension.

Current rates of pension. The maximum standard rate was increased to $780 per annum ($15 a week) from 9 October 1969. This is payable to a single, widowed, or divorced pensioner, a married man whose wife receives a wife's allowance, or a married pensioner whose spouse is not receiving an age or invalid pension, a tuberculosis allowance, or a service pension. The standard rate may also be paid to married pensioner couples who, because of failing health, have lost the economies of living together. The maximum married rate was also increased from 9 October 1969, and is $1,378 per annum ($26.50 a week) for a married couple, both pensioners, i.e. $689 per annum ($13.25 a week) each. For a married person whose spouse receives a tuberculosis allowance, or a service pension, the maximum rate is also $689 per annum ($13.25 a week)

A wife's allowance may be granted, subject to the means test, to the wife of an invalid pensioner or of an age pensioner permanently incapacitated, blind, or who has the care of a child, if she is not receiving an age or invalid pension, or a service pension under the *Repatriation Act* 1920-1969 (*see* Chapter 5, Repatriation). The maximum annual rate of a wife's allowance is $364 per annum ($7 a week).

Additional pension for dependent children under 16 years is payable, subject to a means test, at the rate of $130 per annum ($2.50 a week) for the first child and $182 per annum ($3.50 a week) for each other child. Single or widowed age or invalid pensioners with a dependent child may receive a guardian's allowance of up to $4 a week, or up to $6 a week if the child is under 6 years of age or is an invalid child requiring full-time care. Eligibility for the additional pension for children is extended to include a child over sixteen years until he reaches twenty-one years, provided he is wholly or substantially dependent on the pensioner and is receiving full-time education at a school, college or university. Supplementary assistance of up to $2 a week, subject to a means test, is available to pensioners receiving the maximum standard rate pension if they pay rent or pay for board and lodging or for lodging.

At 30 June 1969, 609,462 age pensioners (86 per cent of all age pensioners) and 113,865 invalid pensioners (94 per cent of all invalid pensioners) were receiving the maximum pension and 149,162 age and invalid pensioners were in receipt of supplementary assistance.

If the pensioner is an inmate of a benevolent home, the maximum payable to him is $5.10 a week if he is eligible for the standard rate pension, or $4.80 a week otherwise. The rest is paid to the home for his maintenance. The balance is not paid to the home if the pensioner is in an infirmary ward, as payments under the Commonwealth Hospital Benefits Scheme are made in that case. The maximum payable to a standard rate pensioner is increased if supplementary assistance is also payable.

Special payments to a surviving pensioner became operative from 10 October 1968. On the death of one member of a married pensioner couple the surviving pensioner spouse becomes entitled to receive, for up to six fortnightly instalments, the equivalent of the two pensions that would have been paid if the spouse had not died. For the purpose of this provision the term 'pensioner' includes a person in receipt of an age, invalid or service pension; a wife's allowance; a rehabilitation allowance; or a sheltered employment allowance.

A table showing the maximum rates of pension operating since 1 July 1909 at dates prior to 14 October 1965 is included on page 608 of Year Book No. 51. Details of the respective rates and allowances payable since 14 October 1965 are included in subsequent Year Books.

Means test. Age and invalid pensions (other than pensions paid to blind persons) and allowances paid to wives are subject to a means test which applies to income and property. The rate of pension payable depends on the claimant's *means as assessed*. These consist of his annual rate of income plus a property component equal to $2 for each complete $20 of his net property above $400. A person's *means as assessed* may consist entirely of income, entirely of the property component, or of various combinations of income and property component. Since 27 September 1969, the rate of pension payable in any case is reduced by half of the amount by which *means as assessed* exceed $442 where the pensioner is married or $520 where the pensioner is single, widowed, or divorced, instead of the full amount in excess of these limits as under the previous means test. Where the standard rate applies, no pension is payable where the value of property is $21,200 or more ($25,360 or more if qualified for a guardian's allowance at the lower rate and $27,440 at the higher rate) if the pensioner is single, widowed or divorced; or $18,600 if the pensioner is married. Where the married rate applies, no pension is payable where the value of property is $18,600 or more. The wife's allowance is affected by income and property on the same basis as the pension, i.e. it is reduced by half the amount of *means as assessed* over $442. Supplementary assistance is reduced by the amount by which *means as assessed* exceed $52.

Certain types of income are excepted. The main exceptions are: income from property: gifts or allowances from children, parents, brothers, or sisters; benefits (other than annuities) from friendly societies; child endowment or other payments for children; Commonwealth health benefits and amounts received from registered benefit organisations. A pensioner's income may also be reduced by up to $208 per annum ($4 a week) for each dependent child under sixteen years (twenty-one years if a full-time student).

Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to $1,500) of life insurance policies, the capital value of annuities or contingent interests, and the value of any reversionary interests.

For the purposes of the means test the income and property of a married person are considered to be half the total income and property of the husband and wife unless they are legally separated or in other special circumstances.

AGE AND INVALID PENSIONS: STATES AND TERRITORIES, 30 JUNE 1969

Pensions in force	*N.S.W.*	*Vic(a)*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Age—									
Males .	77,870	52,413	35,756	19,483	15,257	6,353	626	518	208,276
Females .	191,624	131,363	75,233	46,848	35,175	14,676	752	1,364	497,035
Persons .	*269,494*	*183,776*	*110,989*	*66,331*	*50,432*	*21,029*	*1,378*	*1,882*	*705,311*
Invalid—									
Males .	28,001	15,129	11,680	5,692	4,746	2,231	296	147	67,922
Females .	22,455	11,496	9,690	4,593	3,667	1,588	191	142	53,822
Persons .	*50,456*	*26,625*	*21,370*	*10,285*	*8,413*	*3,819*	*487*	*289*	*(b)121,744*

(*a*) *See* footnote (*g*) to table on page 405. (*b*) Includes 456 pensioners tentatively transferred to sheltered employment allowances.

NEW PENSIONERS, BY SEX AND MARITAL STATUS: AUSTRALIA, 1968-69

	Age pensioners			*Invalid pensioners*			
Marital status	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Total*
Single(*a*)	3,393	5,225	8,618	5,961	4,026	9,987	18,605
Married	17,428	19,543	36,971	8,444	4,127	12,571	49,542
Widowed	3,194	15,398	18,592	757	1,131	1,888	20,480
Divorced	435	1,208	1,643	591	556	1,147	2,790
Total . . .	**24,450**	**41,374**	**65,824**	**15,753**	**9,840**	**25,593**	**91,417**

(*a*) Includes married but permanently separated.

The average age of new age pensioners was 68.9 years for men and 66.2 years for women.

NEW INVALID PENSIONERS, BY AGE GROUP: AUSTRALIA, 1968-69

		16–19 years	*20–44 years*	*45–59 years*	*60–64 years*	*65 years and over*	*Total*
Males . .	number	1,063	3,115	6,501	4,536	538	15,753
Females . .	number	1,018	2,301	6,057	274	190	9,840
Persons . .	number	2,081	5,416	12,558	4,810	728	25,593
	Per cent	*8*	*21*	*49*	*19*	*3*	*100*

Persons at or above the qualifying age for age pensions, when granted invalid pensions, are generally those with insufficient residence to qualify for age pension.

AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA, 1964-65 TO 1968-69

	Pensioners at end of year					*Average weekly pension as at end of year*		
	Age							
Year	*Number*	*Rate(a)*	*Invalid*	*Total*	*Total payments during year(b)*	*Age(c)*	*Invalid (c)*	*Age and invalid combined (c)*
			No.	No.	$'000	$	$	$
1964–65 .	628,100	532	107,473	735,573	426,597	11.18	11.73	11.26
1965–66 .	636,984	530	106,645	743,629	442,355	11.33	12.24	11.46
1966–67 .	651,363	(*d*)532	112,314	763,677	481,840	12.38	13.30	12.52
1967–68 .	(*e*)682,265	546	(*e*)114,745	(*e*)797,010	513,984	(*f*)12.22	13.37	(*f*)12.39
1968–69 .	(*g*)705,311	555	(*g*)121,744	(*g*)827,055	558,587	13.00	14.70	13.26

(*a*) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (*b*) Includes allowances and supplementary assistance. (*c*) Includes supplementary assistance. (*d*) For earlier years persons of pensionable age—*see* footnote (*a*)—excludes Aborigines, while the number of pensioners includes Aborigines throughout. (*e*) The 1967–68 figures are adjusted by reducing the number of invalid pensioners by 3,178 and increasing the number of age pensioners by 1,485 following the introduction of computer processing in New South Wales. (*f*) Decrease in average rates for age pensions at 30 June 1968 was due to the increased number of new pensioners who became eligible for part pensions as a result of amending legislation approved in April 1967. (*g*) The 1968-69 figures are adjusted by reducing the number of invalid pensioners by 1,583 and increasing the number of age pensioners by 1,223 following the introduction of computer processing in Victoria.

Widows' pensions

Rates and conditions. Widows' pensions are payable according to the following classes. The rates shown have been in operation since September 1969.

Class 'A'. A widow who has the custody, care and control of one or more children under the age of sixteen years—The amount payable is the standard rate pension of $780 per annum ($15 a week) and a mother's allowance of $208 per annum ($4 a week) which is increased to $312 per annum ($6 a week) if caring for a child under six years of age or an invalid child requiring full-time care. In addition, extra pension of $130 per annum ($2.50 a week) for the first child under sixteen years and $182 per annum ($3.50 a week) for each other child under sixteen years is payable, subject to the means test. Payment may be made for a child over sixteen years until he reaches twenty-one years, if he is wholly or substantially dependent on the widow and is receiving full-time education at a school, college or university.

Class 'B'. A widow who has no children under sixteen years of age or eligible full-time student children in her custody, care and control, and who is not less than fifty years of age or who, after having attained the age of forty-five years, ceased to receive a Class 'A' widows' pension because she no longer had the custody, care and control of a child—$689 per annum ($13.50 a week).

Class 'C'. A widow who is under fifty years of age and has no children under the age of sixteen years, or eligible full-time student children, in her custody, care and control, but is in necessitous circumstances within the twenty-six weeks after the death of her husband—$13.50 a week for not more than twenty-six weeks after the death of her husband. If the widow is pregnant this period may be extended until the child's birth. She may then become eligible for a Class 'A' widow's pension.

Widow pensioners may receive supplementary assistance of up to $104 per annum ($2 a week), subject to a means test, if they pay rent or pay for board and lodging or for lodging.

For classes 'A' and 'B' the term 'widow' includes a wife who has been deserted by her husband without just cause for a period of at least six months; a divorcee; a woman whose husband has been imprisoned for at least six months; and a woman whose husband is in a mental hospital. Certain dependent females also may qualify for 'A', 'B' or 'C' Class pensions.

A period of residence in Australia before claiming pension is not required if a woman and her husband were residing permanently in Australia when she became a widow. In other circumstances, five years continuous residence immediately preceding lodgment of the claim is required, but this is waived in the case of a woman whose husband has died overseas if she has resided continuously in Australia for ten years at any time and returns to Australia to live.

A widow's pension is not payable to a woman receiving an age or invalid pension, a sheltered employment allowance, a tuberculosis allowance, or a war widow's pension, or to a deserted wife or divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband.

Means test. Widows' pensions are subject to a means test on income and property. The pension payable depends on the claimant's *means as assessed.* These consist of her annual rate of income together with a property component equal to $2 for every complete $20 by which the value of her property is in excess of a stipulated sum. A Class 'A' widow has a basic exemption of $2,000 when the value of her property exceeds $4,500, but no property component is calculated where she has property of no more than $4,500 in value. A Class 'A' pension is not payable where a widow has property valued at $26,960 or more, or, if caring for a child under six years of age or an invalid child requiring full-time care, has property valued at $29,040 or more. In the case of a Class 'B' widow, $400 of property is exempt and no Class 'B' pension is payable where property is $19,380 or more. In each case the maximum rate of pension is reduced by half the amount by which the widow's *means as assessed* exceed $520. There is no specific means test for the Class 'C' pension, which is paid only where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions. Supplementary assistance is reduced by the amount by which *means as assessed* exceed $52.

The average age of new widow pensioners admitted during 1968–69 was: Class 'A', 37.6 years; Class 'B', 58.2 years; Class 'C', 43.4 years; and for all classes, 47.0 years.

Pensions

WIDOWS' PENSIONS: STATES, TERRITORIES, ETC., 1968-69

State, Territory, etc.	*Number admitted —all classes (a)*	*Pensions current at end of year*				*Average weekly pension at end of year (b)*	*Amount paid in pensions during year (b) (c)*
		Class 'A'	*Class 'B'*	*Class 'C'*	*All classes*		
						$	$'000
New South Wales . .	5,719	13,949	14,927	36	28,912	17.60	25,589
Victoria	4,519	9,917	10,419	13	20,349	17.70	18,090
Queensland . . .	2,240	6,045	5,965	20	12,030	17.77	10,677
South Australia . .	1,548	3,734	3,948	5	7,687	17.55	6,815
Western Australia . .	1,199	2,579	2,972	8	5,559	16.98	4,786
Tasmania . . .	586	1,464	1,210	4	2,678	18.35	2,465
Northern Territory .	74	171	132	4	307	19.00	280
Australian Capital Territory	108	179	195	1	375	17.50	309
Abroad . . .	..	(*d*)	(*d*)	(*d*)	(*d*)	..	70
Total . . .	**15,993**	**38,038**	**39,768**	**91**	**77,897**	**17.63**	**69,080**

(*a*) Excludes transfers from one class to another. (*b*) Includes supplementary assistance and allowances. (*c*) Includes payments to benevolent homes for maintenance of pensioners. (*d*) Included in the figures for the State or Territory in which the pensioner is normally domiciled.

WIDOWS' PENSIONS: SUMMARY, AUSTRALIA, 1964-65 TO 1968-69

Year	*Number admitted —all classes (a)*	*Pensions current at end of year*				*Average weekly pension at end of year (b)*	*Amount paid in pensions during year (b) (c)*
		Class 'A'	*Class 'B'*	*Class 'C'*	*All classes*		
						$	$'000
1964–65	14,243	29,713	35,574	111	65,398	14.09	47,044
1965–66	13,972	31,796	36,703	107	68,606	14.53	50,017
1966–67	15,727	34,526	38,259	105	72,890	15.81	56,438
1967–68	16,104	(*d*)35,899	(*d*)39,065	105	(*d*)75,069	(*e*)15.79	61,061
1968–69	15,993	38,038	39,768	91	77,897	17.63	69,080

(*a*) Excludes transfers from one class to another. (*b*) Includes supplementary assistance and allowances. (*c*) Includes payments to benevolent homes for maintenance of pensioners. (*d*) During 1967–68, a reduction of 769 Class 'A' and 233 Class 'B' pensioners was made following the introduction of computer processing in New South Wales. (*e*) Decrease in average rate due mainly to the increased number of new pensioners who became eligible for part pension as a result of amending legislation approved in April 1967.

For details of training scheme for widow pensioners, *see* page 415.

Funeral benefits

A funeral benefit of up to $20 is payable to the person who has paid, or is liable to pay, the cost of the funeral of a pensioner. The maximum amount payable is increased to $40 where a pensioner is liable for the funeral expenses of a spouse, dependent child under 16 years or student child 16 to 21 years, or of another pensioner.

For the purpose of funeral benefits, a pensioner means a person in receipt of an age, invalid or widow's pension or of a tuberculosis, rehabilitation or sheltered employment allowance. It also includes a person who, immediately prior to his or her death was an eligible claimant for such pension or allowance if qualified under the means test in operation before 27 September 1969.

FUNERAL BENEFITS GRANTED: STATES, TERRITORIES, ETC., 1964-65 TO 1968-69

(Number)

State, Territory, etc.	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales	17,709	17,015	18,567	17,092	21,830
Victoria	11,280	11,354	12,386	12,292	13,897
Queensland	6,542	6,596	7,188	7,129	7,930
South Australia	3,801	3,751	4,031	4,531	4,855
Western Australia	2,981	2,709	3,129	3,151	3,397
Tasmania	1,324	1,340	1,347	1,345	1,438
Northern Territory	18	8	2	7	5
Australian Capital Territory	94	92	108	122	136
Abroad	5	2	6	3	3
Total	**43,755**	**42,867**	**46,764**	**45,672**	**53,491**

Total cost of funeral benefits granted during 1968–69 was $1,570,915.

Maternity allowances

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Commonwealth health scheme. They are not subject to a means test.

Subject to certain conditions, a maternity allowance is payable to a woman who gives birth to a child, either in Australia or on board a ship proceeding to Australia or from a port in Australia or an Australian Territory to another such port, and, on the date on which she lodges her claim, is residing in Australia or is in Australia and intends to remain permanently, provided she receives no benefit similar to a maternity allowance from the country from which she came. A woman who gives birth to a child during a temporary absence from Australia may also be eligible. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia permanently.

Rates of allowance. The allowance is $30 if the mother has no other children, $32 if she has one or two children under sixteen, and $35 if she has three or more other children under sixteen. The amount is increased by $10 for each additional child born at a birth. An advance payment of $20 may be made four weeks before the expected date of birth. The balance is payable immediately after the birth. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the child had developed for at least five and a half months.

Claims paid

MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE STATES AND TERRITORIES, ETC., 1968-69

(Number)

State, Territory, etc.	Single births			Multiple births								Total claims paid
				Twins			Triplets			Quadruplets		
	$30	$32	$35	$40	$42	$45	$50	$52	$55	$60	$62	
New South Wales	33,721	40,272	12,621	297	418	220	..	5	2	..	..	87,556
Victoria	27,200	32,871	11,467	248	352	159	1	1	3	..	2	72,304
Queensland	13,009	15,488	6,885	132	176	96	1	3	..	..	..	35,790
South Australia	8,096	10,202	3,183	57	110	34	2	..	..	..	..	21,684
Western Australia	7,770	9,296	3,083	77	94	59	..	1	1	..	..	20,381
Tasmania	2,983	3,851	1,446	22	53	16	1	..	1	..	..	8,373
Northern Territory	738	896	524	4	5	11	..	..	..	..	..	2,178
Australian Capital Territory	1,086	1,445	360	7	15	2	..	..	..	..	..	2,915
Abroad	67	35	4	..	..	..	..	..	..	..	..	106
Total	**94,670**	**114,356**	**39,573**	**844**	**1,223**	**597**	**5**	**10**	**7**	**..**	**2**	**251,287**

MATERNITY ALLOWANCES: CLAIMS PAID, AUSTRALIA 1964–65 TO 1968–69

Year	Number single births	Multiple births	Total claims paid	Amount paid
				$'000
1964–65	225,679	2,460	228,139	7,294
1965–66	221,889	2,422	224,311	7,159
1966–67	226,339	2,446	228,785	7,294
1967–68	228,324	2,452	230,776	7,349
1968–69	248,599	2,688	251,287	7,960

Child endowment

A person who is resident in Australia and has the custody, care and control of one or more children under the age of sixteen years or of a full-time student child over sixteen but under twenty-one years, or an approved institution of which children are inmates, is qualified to receive an endowment in respect of each such child. Full-time student children are those receiving full-time education at a school, college or university and who are not in employment or engaged in work on their own account. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months' residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Services is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia. Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas.

Rates of endowment. Since 19 September 1967 the weekly rates have been: children under sixteen years—50 cents for the first or only child in a family; $1.00 for the second; $1.50 for the third; and then increases of 25 cents for each subsequent child, making $1.75 for the fourth, $2.00 for the fifth and so on. For each eligible student child in a family the rate is $1.50. which is also the rate payable for each child under sixteen years, or full-time student child in an approved institution.

Number of claims and endowed children—children under sixteen years. The number of families receiving child endowment at 30 June 1969 in respect of children under sixteen years was 1,701,914 an increase of 32,285 or 1.9 per cent during the year.

CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN UNDER 16 YEARS STATES, TERRITORIES, ETC., 30 JUNE 1969

State, Territory, etc.	*Family groups*			*Approved institutions*		
		Endowed children under 16 years				
	Claims in force	*Number*	*Average number per claim*	*Number (a)*	*Endowed child inmates under 16 years*	*Total endowed children under 16 years*
New South Wales	605,788	1,306,568	2.16	141	6,263	1,312,831
Victoria	472,693	1,041,713	2.20	120	5,462	1,047,175
Queensland	240,099	553,216	2.30	56	3,535	556,751
South Australia	162,220	354,777	2.19	59	2,201	356,978
Western Australia	136,454	313,857	2.30	73	4,290	318,147
Tasmania	55,976	129,200	2.31	22	436	129,636
Northern Territory	10,177	23,837	2.34	21	3,458	27,295
Australian Capital Territory	18,242	40,708	2.23	1	54	40,762
Abroad	265	545	2.06	..	..	545
Total	**1,701,914**	**3,764,421**	**2.21**	**493**	**25,699**	**3,790,120**

(*a*) All institutions approved for receipt of endowment.

The following table shows, as at 30 June 1969, the number of claims in force and the number of endowed children under sixteen years in family groups, classified according to the number of endowed children in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and any other children in the custody, care and control of the claimant.

CHILD ENDOWMENT: ENDOWED CHILDREN UNDER 16 YEARS IN FAMILY GROUPS TOTAL, 30 JUNE 1969

Number of endowed children under 16 years in family group	*Claims in force*	*Endowed children under 16 years*	*Number of endowed children under 16 years in family group*	*Claims in force*	*Endowed children under 16 years*
1	580,459	580,459	9	1,167	10,503
2	561,744	1,123,488	10	398	3,980
3	324,026	972,078	11	151	1,661
4	145,920	583,680	12	38	456
5	54,779	273,895	13	17	221
6	21,793	130,758	14	2	28
7	8,178	57,246	15 or more	4	64
8	3,238	25,904	Total	**1,701,914**	**3,764,421**

Number of claims and endowed children—student children sixteen to twenty-one years

CHILD ENDOWMENT: CLAIMS AND ENDOWED STUDENT CHILDREN STATES, TERRITORIES, ETC., 30 JUNE 1969

	Family groups			*Approved institutions*		
		Endowed student children				
State, Territory, etc.	*Claims in force*	*Number*	*Average number per claim*	*Number(a)*	*Endowed student child inmates*	*Total endowed student children*
New South Wales . . .	70,566	76,876	1.09	13	117	76,993
Victoria	62,870	69,490	1.11	24	73	69,563
Queensland	16,923	18,456	1.09	14	163	18,619
South Australia . . .	19,087	20,718	1.09	20	177	20,895
Western Australia . .	10,486	11,290	1.08	22	156	11,446
Tasmania	4,514	4,932	1.09	5	10	4,942
Northern Territory . .	331	347	1.05	3	18	365
Australian Capital Territory .	2,690	3,061	1.14	. .	. .	3,061
Abroad	33	38	1.15	. .	. .	38
Total	**187,500**	**205,208**	**1.09**	**101**	**714**	**205,922**

(*a*) With claims in respect of student children. Included with approved institutions in table on page 409.

CHILD ENDOWMENT: ENDOWED STUDENT CHILDREN IN FAMILY GROUPS TOTAL, 30 JUNE 1969

Number of endowed student children in family group	*Claims in force*	*Endowed student children*	*Number of endowed student children in family group*	*Claims in force*	*Endowed student children*
1	170,652	170,652	4	27	108
2	16,017	32,034	5	1	5
3	803	2,409	Total . .	**187,500**	**205,208**

Liability and expenditure—children under sixteen years

CHILD ENDOWMENT: CHILDREN UNDER 16 YEARS LIABILITY AND EXPENDITURE, STATES, TERRITORIES, ETC., 1968-69 ($'000)

	Annual liability at 30 June 1969			
State, Territory, etc.	*Family groups*	*Approved institutions*	*Total*	*Total payments to endowees and institutions during year(a)*
New South Wales . .	62,754	489	63,243	60,604
Victoria	50,839	426	51,265	48,887
Queensland	27,946	276	28,222	27,050
South Australia . . .	17,091	172	17,263	16,635
Western Australia . .	15,600	335	15,935	14,644
Tasmania	6,504	34	6,538	6,334
Northern Territory . .	1,235	270	1,505	1,397
Australian Capital Territory .	1,975	4	1,979	1,891
Abroad	25	. .	25	(*b*)69
Total	**183,970**	**2,005**	**185,975**	**177,511**

(*a*) *See* footnote (*b*) on page 411. (*b*) Includes expenditure for endowed student children; separate figures are not available.

Liability and expenditure—student children sixteen to twenty-one years

CHILD ENDOWMENT: STUDENT CHILDREN, LIABILITY, AND EXPENDITURE, STATES, TERRITORIES, ETC., 1968-69

($'000)

State, Territory, etc.	Annual liability at 30 June 1969 — Family groups	Annual liability at 30 June 1969 — Approved institutions	Annual liability at 30 June 1969 — Total	Total payments to endowees and institution during year
New South Wales	5,996	9	6,005	5,825
Victoria	5,420	6	5,426	5,246
Queensland	1,440	13	1,453	1,626
South Australia	1,616	14	1,630	1,527
Western Australia	881	12	893	896
Tasmania	385	1	386	376
Northern Territory	27	1	28	34
Australian Capital Territory	239	..	239	222
Abroad	..	..	..	(*a*)
Total	**16,003**	**56**	**16,059**	**15,752**

(*a*) Included in preceding table showing expenditure for endowed children under sixteen years; separate figures are not available.

Child endowment summary, 1964–65 *to* 1968–69

CHILD ENDOWMENT: SUMMARY, AUSTRALIA, 1964-65 TO 1968-69

Year	At end of year — Family group claims in force — For children under 16 years(*a*)	At end of year — Family group claims in force — For student children(*a*)	At end of year — Approved institutions	At end of year — Total endowed children	Annual liability for endowment (*b*)	Total payments during year (*b*)
					$'000	$'000
1964–65	1,582,801	128,641	487	3,710,616	180,065	172,830
1965–66	1,610,490	132,900	488	3,762,646	182,288	176,432
1966–67	1,640,390	151,623	487	3,834,917	185,940	(*c*)199,282
1967–68	1,669,629	158,488	491	3,890,853	196,397	187,920
1968–69	1,701,914	187,500	493	3,996,042	202,034	193,263

(*a*) Claims by families with children under sixteen and student children are shown in both columns. Information on the number of families having such dual claims is not available. (*b*) A number of endowments are paid every twelve weeks. During two years out of every three there are four such payments but every third year there are five. Figures for annual liability therefore, reflect trends in expenditure on child endowment more accurately than do figures for payments. (*c*) Expenditure for this year includes five twelve-weekly payments.

Unemployment, sickness, and special benefits

Unemployment and sickness benefits are paid to males over sixteen and under sixty-five years of age, and females over sixteen and under sixty years of age, who are unemployed or who are temporarily incapacitated for work and thereby suffer loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the *Repatriation Act* 1920–1969 or a tuberculosis allowance, is ineligible to receive a benefit.

To qualify for an unemployment benefit a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration with the local Commonwealth District Employment Office is necessary. To qualify for a sickness benefit, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income. A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances. In exceptional cases a married woman may qualify for unemployment benefit in her own right.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension or a service pension, and who, because of age, physical or mental disability or domestic circumstances, or for any other reason, is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, deserted wives, persons caring for invalid parents, and persons ineligible for age, invalid or widows' pensions because of lack of residence qualifications.

Special benefits are also paid to migrants who are in Commonwealth centres or hostels awaiting their first placement in employment in Australia. During this time they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

Rates of benefit. The maximum weekly rates of benefit payable and permissible income in respect of benefit periods which commenced on or after 27 September 1969 are as follows.

	Maximum weekly rate	*Permissible weekly income*
	$	$
Adult (21 and over) or married minor	10.00	6.00
Unmarried person, aged 18–20 years	6.00	3.00
Unmarried person, aged 16–17 years	4.50	3.00

The adult rate of benefit is payable to unmarried minors having no parent living in Australia.

An additional benefit of $7 a week may be paid for a dependent spouse and $2.50 a week for the first dependent child and $3.50 for each other dependent child under sixteen years of age resident in Australia. Additional benefit, at the same rate as that for a dependent spouse, may be paid where a woman is keeping house for a claimant who has one or more children under sixteen years of age in his care. It may be granted only if no such benefit is payable for his wife, and the housekeeper is substantially dependent on him but not employed by him.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount of permissible income. For unemployment benefit purposes the income of the spouse is also taken into account unless the claimant and his spouse are permanently separated. For sickness benefit purposes the income from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. 'Income' does not include child endowment or other payments for children, Commonwealth hospital and pharmaceutical benefits, a tuberculosis allowance, or an amount paid in reimbursement of medical, dental or similar expenses. There is no means test on property.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days during which unemployment or sickness benefit is not payable, but this waiting period is not required more than once in any period of thirteen weeks.

Benefits

UNEMPLOYMENT, SICKNESS, AND SPECIAL BENEFITS STATES AND TERRITORIES, 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Number admitted to benefit during year—									
Unemployment—									
Males	25,473	20,573	(*a*)28,526	12,014	3,977	2,432	134	180	(*a*)93,309
Females	11,997	6,599	10,627	6,139	2,544	1,552	61	86	39,605
Persons	37,470	27,172	(*a*)39,153	18,153	6,521	3,984	195	266	(*a*)132,914
Sickness—									
Males	19,784	10,833	8,866	4,745	4,179	1,704	162	212	50,485
Females	5,172	2,965	1,908	1,150	878	366	27	73	12,539
Persons	24,956	13,798	10,774	5,895	5,057	2,070	189	285	63,024
Special—									
Ordinary—									
Males	567	395	362	96	102	56	6	6	1,590
Females(*b*)	2,907	4,029	1,484	798	703	347	25	37	10,330
Persons	3,474	4,424	1,846	894	805	403	31	43	11,920
Migrants—									
Persons	5 884	3,432	30	662	..	..	..	..	10,008
Total—									
Males(c)	*45,824*	*31,801*	(*a*)*37,754*	*16,855*	*8,258*	*4,192*	*302*	*398*	(*a*)*145,384*
Females(c)	*20,076*	*13,593*	*14,019*	*8,087*	*4,125*	*2,265*	*113*	*196*	*62,474*
Persons(d)	*71,784*	*48,826*	(*a*)*51,803*	*25,604*	*12,383*	*6,457*	*415*	*594*	(*a*)*217,866*
Persons on benefit at end of year—									
Unemployment—									
Males	2,965	2,519	3,149	1,090	226	381	2	12	10,344
Females	1,849	1,089	1,298	866	243	219	1	1	5,566
Persons	4,814	3,608	4,447	1,956	469	600	3	13	15,910
Sickness—									
Males	2,670	1,692	955	519	401	211	15	27	6,490
Females	700	507	204	157	84	31	5	7	1,695
Persons	3,370	2,199	1,159	676	485	242	20	34	8,185
Special—									
Ordinary—									
Males	251	78	87	28	19	11	1	..	475
Females(*b*)	1,045	1,524	516	252	230	136	5	4	3,712
Persons	1,296	1,602	603	280	249	147	6	4	4,187
Migrants—									
Persons	203	161	..	34	..	..	..	..	398
Total—									
Males(c)	*5,886*	*4,289*	*4,191*	*1,637*	*646*	*603*	*18*	*39*	*17,309*
Females(c)	*3,594*	*3,120*	*2,018*	*1,275*	*557*	*386*	*11*	*12*	*10,973*
Persons(d)	*9,683*	*7,570*	*6,209*	*2,946*	*1,203*	*989*	*29*	*51*	*28,680*
Benefits paid during year—									
Unemployment . $'000	2,627	2,246	2,474	1,286	309	297	19	9	9,268
Sickness . $'000	2,187	1,473	801	461	389	166	24	30	5,531
Special(*d*) . $'000	657	838	249	126	97	55	4	3	2,031
Total benefits paid . $'000	*5,472*	*4,557*	*3,525*	*1,873*	*795*	*518*	*47*	*43*	*16.830*

(*a*) Excludes 244 Torres Strait Islanders. (*b*) Since June 1968, special benefits, instead of sickness or unemployment benefits, became payable for confinement cases. (*c*) Excludes migrants in Commonwealth centres or hostels awaiting their first placement in employment in Australia. (*d*) Includes migrants in the category described in footnote (*c*).

UNEMPLOYMENT, SICKNESS, AND SPECIAL BENEFITS: SUMMARY, AUSTRALIA 1964-65 TO 1968-69

Year	*Number admitted to benefit during year*			*Average number of persons on benefit at end of each week*			*Amount paid in benefits*		
	Unemployment	*Sickness*	*Special (a)*	*Unemployment*	*Sickness*	*Special (a)*	*Unemployment*	*Sickness*	*Special (a)*
							$'000	$'000	$'000
1964–65	88,512	68,637	6,719	13,742	10,457	2,567	6,807	6,498	1,235
1965–66	114,497	69,585	7,838	14,927	10,044	2,507	7,813	6,483	1,261
1966–67	151,024	72,276	9,340	20,640	10,108	2,413	11,186	6,611	1,247
1967–68	157,856	72,924	11,615	21,496	9,935	2,532	11,242	6,290	1,300
1968–69	132,914	63,024	(*b*)21,928	17,818	8,407	(*b*)4,307	9,268	5,531	(*b*)2,031

(*a*) Includes migrants in Commonwealth centres or hostels awaiting their first placement in employment in Australia.
(*b*) Since June 1968, special benefits instead of sickness or unemployment benefits, became payable for confinement cases.

Sheltered employment allowance

This allowance was introduced on 30 June 1967 as an alternative to an invalid pension. It is available to disabled employees engaged in approved sheltered employment and who are either invalid pensioners or are likely to become permanently incapacitatd to a pensionable degree and are otherwise qualified to receive an invalid pension.

The maximum rate of the allowance is the same as the maximum rate of invalid pension. Additional benefits such as wife's allowance and additional pension for children that would be paid if the person were an invalid pensioner are added to the sheltered employment allowance to form one composite payment. The means test is the same as for invalid pensions.

At 30 June 1969, twenty workshops were approved under the *Social Services Act* 1947–68 to pay sheltered employment allowances on behalf of the Department of Social Services. Nine workshops were paying the allowances to 488 employees including 456 who had been tentatively transferred from invalid pensions and who are also included in the number of invalid pensioners shown in the tables on pages 404 and 405. Employees in other sheltered workshops continued to receive invalid pensions. Expenditure during the year 1968–69 was $288,276.

Commonwealth Rehabilitation Service

The Commonwealth Rehabilitation Service was set up to help persons who are unable to work because of physical handicap, or who have had to give up their employment because of sickness or injury. It helps disabled persons to reach their maximum physical fitness and to prepare for suitable employment. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable and there are reasonable prospects of his engaging in a suitable vocation within three years after the commencement of treatment or training.

The service is available to invalid and widow pensioners, persons receiving unemployment, sickness or special benefits, persons receiving tuberculosis allowances, and persons aged fourteen or fifteen who, without treatment and training, would be likely to qualify for an invalid pension on reaching the age of sixteen years. During treatment, payment of pension or benefit continues. When vocational training begins the pension or benefit is suspended and a rehabilitation allowance, together with a training allowance of $4.00 a week, is paid instead. With an invalid pensioner, or a sickness, unemployment, or special beneficiary, the rehabilitation allowance is equivalent to and calculated in the same manner as an invalid pension. For a widow pensioner the rate is the same as that of the widow's pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connection with treatment, training or attendance for an interview or for medical examination may also be paid. Necessary artificial replacements, surgical aids and appliances may be provided, free of charge, to a person receiving treatment and training or who needs them to assist him to engage in a suitable vocation after the discontinuance of his treatment and training or who needs them otherwise to assist in his rehabilitation. He may also be provided with books, equipment and tools of trade costing up to $80 in any period of twelve months. Where books, equipment and tools of trade provided to assist a person to engage in a suitable vocation are retained by him, he is liable to repay the cost but is not required to make repayment until after he has commenced employment. The repayment may be made by instalments. If the treatment or vocational training does not result in the trainee being able to engage in employment, he receives the pension or benefit to which he is entitled. Disabled persons who cannot qualify for the free service may pay for rehabilitation themselves, or they may be sponsored by government or private organisations.

Numbers dealt with by the service

COMMONWEALTH REHABILITATION SERVICE: AUSTRALIA, 1968-69

Class of beneficiary	*Referred*	*Accepted*	*Completed training*	*Placed in employment*		*Expenditure during year* $'000
				After training (a)	*Without training*	
Invalid pensioners	9,646	366	122	98	129	n.a.
Widow pensioners(*b*)	9	1	. .	. .	. .	
Unemployment and sickness beneficiaries	14,505	911	150	157	594	
Special beneficiaries	3	. .	. .	. .	1	
Recipients of tuberculosis allowance	17	9	4	5	6	
Persons aged 14–15 years	120	52	22	15	21	
Persons provided with rehabilitation on payment of the cost by themselves or by another authority	114	96	8	11	67	
Total	**24,414**	**1,435**	**306**	**286**	**818**	(*b*)**2,122**

(*a*) Includes persons who had received training prior to 1 July 1968. (*b*) Excludes widows accepted under the *Training Scheme for Widow Pensioners* (*see* page 415).

Of the 1,435 persons accepted during 1968–69, 75 per cent were under forty years of age. The average number undergoing rehabilitation at the end of each month during the year was 943.

Training scheme for widow pensioners

In September 1968 a scheme was introduced to help widow pensioners acquire vocational skills which will enable them to undertake gainful employment. Training may take the form of refresher courses or it may involve training for new skills. During training the widow continues to receive her pension for as long as she remains eligible. In addition to pension, she may qualify for a training allowance of $4 a week and a living-away-from-home allowance of $5 a week. The cost of tuition fees and fares may also be met. Of the 2,119 applications received during 1968–69, 1,117 were accepted for training and of this number, 883 commenced training; 89 completed training and 66 were placed in employment. Expenditure during the year was $137,328.

Commonwealth assistance to aged persons homes and sheltered workshops and for accommodation for disabled persons employed in sheltered workshops

The Aged Persons Homes Act 1954–1969 is designed to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under the Act an organisation must be:

(*a*) carried on otherwise than for the purposes of profit or gain to the individual members; and

(*b*) a religious organisation, an organisation of which the principal objects or purposes are charitable or benevolent, an organisation of former members of the defence forces established in every State or a State branch of such an organisation, an organisation approved by the Governor-General for the purposes of the Act, or a local governing body.

An organisation conducted or controlled by, or by persons appointed by, the Government of the Commonwealth or of a State is not eligible for assistance under the Act.

The Director-General of Social Services may make a grant of money to an organisation as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a basis of $2 for each $1 raised by the organisation ($1 for each $1 from 1954 to 1957), not counting money which the organisation receives from a governmental body (other than a local governing body) or borrowed. Before a grant is made the Director-General must be satisfied that the sum of the money expended and the money at present available for expenditure by the organisation towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home.

The following table gives information regarding grants approved during 1968–69. The amounts granted include new grants approved in 1968–69 together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED PERSONS HOMES: GRANTS APPROVED, AMOUNTS GRANTED, AND BEDS PROVIDED, STATES AND TERRITORIES, 1968–69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Total*
Grants approved .	No.	41	43	28	46	24	11	..	..	193
Amounts granted .	$'000	3,878	2,139	1,888	2,337	1,855	607	..	..	12,704
Beds provided . .	No.	1,024	523	522	620	496	157	..	..	3,342

The following table gives information regarding grants approved for each of the years 1964–65 to 1968–69. The amounts granted in each year include new grants approved in that year together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED PERSONS HOMES: GRANTS APPROVED AMOUNTS GRANTED, AND BEDS PROVIDED AUSTRALIA 1964-65 TO 1968-69

Year	*Grants approved*	*Amounts granted*	*Beds provided*
	No.	$'000	No.
1964–65 . . .	151	6,680	2,083
1965–66 . . .	149	9,576	2,807
1966–67 . . .	158	11,095	3,227
1967–68 . . .	170	10,220	2,831
1968–69 . . .	193	12,704	3,342

Since the commencement of the Act in December 1954, 1,851 grants amounting to $92,422,564 have been approved, and accommodation has been provided for 32,617 aged persons.

On 12 September 1969 the Aged Persons Homes Act was amended to provide a *Personal care subsidy* of $5 a week for persons of eighty years of age or over who receive approved personal care while living in hostel type accommodation provided by organisations eligible under the Aged Persons Homes Act.

The Sheltered Employment (Assistance) Act 1967 superseded the *Disabled Persons Accommodation Act* 1963. Under the latter Act, which was in operation from 25 November 1963 to 30 June 1967, total grants of $372,118 had been approved. The new Act, which came into operation on 30 June 1967, provides for subsidies of $2 for $1 to eligible organisations towards the capital cost of sheltered workshops, the equipment for them, and accommodation for disabled people employed or likely to be employed in sheltered workshops. The Act covers the erection of buildings and the purchase of existing buildings. In both cases the cost of land is included in the capital cost as is the cost of any necessary conversion of an existing building. The subsidy may also be paid towards the rental, for up to three years, where rented premises are used to provide sheltered employment. Organisations eligible for grants under the Act are the same as those specified under the Aged Persons Homes Act. A substantial number of the people employed in the sheltered workshop must be medically qualified for an invalid pension, or be likely to become so qualified if not provided with sheltered employment, and must receive payment for their work before the organisation can qualify for a subsidy.

The total subsidy for the 249 grants approved during 1968–69 amounted to $1,797,165. Of these grants, 34 were for workshop buildings and extensions involving a subsidy of $1,169,074. The increased number of grants during the year was due mainly to the greater demand for equipment and, to a lesser extent, to the construction and rental of more workshops. The remaining grants and subsidies approved were divided as follows: 198 grants totalling $253,798 for workshop equipment; 14 in respect of rental of premises used as sheltered workshops, $27,654; and 3 grants involving $346,639 for projects providing accommodation for 99 disabled workshop employees.

Commonwealth assistance to States

The States Grants (Deserted) Wives Act 1968 came into operation on 21 June 1968 with retrospective effect from 1 January 1968. The Act provides for assistance to be given by the Commonwealth to the States in respect of aid for mothers with children where there is no bread-winner and the mothers are not eligible for benefits under the Social Services Act. Broadly, these include deserted wives during the first six months of desertion, wives during the first six months of the husband's imprisonment, deserted de facto wives and de facto wives of prisoners, and other unmarried mothers who are ineligible for Commonwealth widows' pension.

The type of assistance attracting a Commonwealth grant may be provided in the form of cash, food or clothing. The grant is made by the Commonwealth to the States on the basis of half the cost of the approved assistance paid to the mother or half the amount of Class A widow's pension whichever is the lesser.

All States, with the exception of Victoria, participated in the Scheme in 1968–69. Payments by the Commonwealth amounted to $1,149,282 compared with $200,733 during 1967–68.

The *States Grants (Home Care) Act* 1969 provides that the Commonwealth will share on a $1 for $1 basis with participating States the cost of approved housekeeping or other domestic assistance provided wholly or mainly for aged persons in their homes. The Commonwealth will also share on a $1 for $1 basis with participating States up to a maximum of one-third of the capital cost of approved senior citizens' centres as well as meeting on a $1 for $1 basis with the States the cost of a salary of a welfare officer employed by such a centre.

Telephone rental concessions

Effective from 1 October 1964 an amendment to the Telephone Regulations of the Post and Telegraph Act provides that a telephone service for qualified age, invalid and widow pensioners and blind people is available at an annual rental equal to two-thirds of the amount otherwise payable. The Department of Social Services re-imburses the Postmaster-General's Department for the cost of the scheme including administrative costs. Expenditure during 1968–69 was $1,895,672, plus administrative costs amounting to $56,751.

Compassionate allowances

These allowances are paid by the Commonwealth on a discretionary basis to certain people who are unable to qualify for pensions or other benefits under the provisions of the Social Services Act. Expenditure on compassionate allowances and payments of a similar nature during 1968–69 was $94,116.

Northern Territory and Australian Capital Territory Welfare Services

Provision of general Welfare services in these two Territories is the responsibility of the Commonwealth. In so far as Welfare items can be identified for accounting purposes, the following table shows the cost of providing these services for each of the years 1964–65 to 1968–69. The amounts shown exclude administrative costs; payments from the National Welfare Fund (*see* pages 400–1); and Commonwealth expenditure on Aboriginal Welfare shown in the table on page 418 for the Northern Territory and Australian Capital Territory.

COMMONWEALTH EXPENDITURE ON GENERAL WELFARE SERVICES: NORTHERN TERRITORY AND AUSTRALIAN CAPITAL TERRITORY 1964-65 TO 1968-69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Northern Territory—					
Current	175	191	260	502	565
Capital	. .	. .	32	47	46
Total	**175**	**191**	**292**	**549**	**611**
Australian Capital Territory—					
Current	186	236	257	325	367
Capital	. .	84	36	. .	. .
Total	**186**	**320**	**293**	**325**	**367**

Aboriginal welfare

The Aboriginal population as defined at the 1966 Census of Population and Housing includes persons who, at the Census, stated themselves to be 'Aboriginal', or who stated themselves to be more than half Aboriginal, or who were half Aboriginal and half European. The number enumerated in this group at the 1966 Census was 80,207 persons. This figure excludes Torres Strait Islanders, persons who stated that they were less than half Aboriginal and persons who are half Aboriginal and half non-European. An independent estimate, which includes each of these categories, made by the Commonwealth Office of Aboriginal Affairs set the total Aboriginal population in 1969 at about 140,000 persons. The Aboriginal population is increasing at a rate faster than the Australian average. Few Aborigines still live a nomadic life; most live a settled, but in many other ways traditional, life. There are others at all stages between this and full participation in the life of the Australian community.

A referendum in May 1967 led to the repeal of section 127 of the Constitution which provided that in reckoning the numbers for census purposes, Aborigines should not be counted; and to the deletion of the words 'other than the Aboriginal race in any State' from Section 51 (xxvi) which relates to the power of the Commonwealth Parliament to make laws with respect to people of any race. The Federal Government, whose aim is to help the Aborigines to become an integral part of Australian community life, now shares with the States power and responsibilities for the advancement of Aborigines. The Commonwealth Government has created an office of Aboriginal Affairs, in Canberra, as the agency co-ordinating policy affecting Aborigines, as well as continuing its financial and administrative responsibilities for Aborigines in the Northern Territory and Australian Capital Territory through the Department of the Interior. The Office serves a Council, comprising a Chairman and two members, which has two functions: to advise in the framing of national policies for the

Aboriginal citizens of Australia; and to consult with Commonwealth Departments and authorities whose activities have a bearing on Aboriginal welfare.

In recent years the Commonwealth, State and Northern Territory legislatures have been active in progressively removing all discriminatory legislation from the relevant Acts of the Commonwealth and State Parliaments and from the relevant Ordinances of the Northern Territory, and therefore direct benefits are not as readily identifiable as they were in the past. In the legal and formal sense none of the opportunities open to Australians generally is closed to Aborigines. There are no indigenous Aborigines in Tasmania.

In the 1969–70 Budget the Commonwealth provided $7.2 million in an Aboriginal Trust Account of which $5.4 million was for grants to the States for assistance in the specific fields of health, housing, education and employment; and $1.8 million for direct expenditure by the Commonwealth (*see* table below.) From the Capital Fund for Aboriginal Enterprises, established in 1968 for corporate or individual ventures with economic potential, loans totalling $328,000 had been approved to 30 June 1969.

Commonwealth and State expenditure from Consolidated Revenue. Expenditure out of Commonwealth and State Consolidated Revenue Funds specifically on Aboriginal welfare during the years 1964-65 to 1968-69 is shown in the following table. The figures hereunder do not represent total Commonwealth and State expenditure on Aborigines. They exclude expenditure from Trust Funds and Loan Funds and there may be some other activities for which figures are not available. As citizens, Aborigines benefit like other Australians from services provided by various Government departments.

ABORIGINAL WELFARE: EXPENDITURE FROM CONSOLIDATED REVENUE FUNDS, STATES AND TERRITORIES, 1964-65 TO 1968-69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	712	130	1,764	1.270	1,880	3,201	6	8,965
1965–66	809	130	2,016	1,428	2,151	2,595	7	9,136
1966–67	909	131	2,317	1,490	2,265	3,151	2	10,264
1967–68	814	200	3,009	1,634	2,690	3,983	2	12,333
1968–69	1,027	320	3,639	1,688	3,076	4,892	(*a*)	14,642

(*a*) Not available—expenditure included in amounts paid from general welfare, etc., appropriations.

STATE EXPENDITURE ON CERTAIN WELFARE SERVICES

The following table shows net expenditure from State government funds on certain welfare services. The figures exclude expenditure on unemployment, bush fire, flood, etc., relief, Aboriginal welfare, and some other items which are excluded because information cannot be obtained for all States. Loan fund expenditure is excluded also. Because of differences in organisation and accounting methods, the information shown for some classes is not on exactly the same basis for all States; it may also be incomplete because particulars of some activities are not separately recorded and are therefore excluded. The expenditure shown is 'net' in the sense that receipts for services rendered have been deducted from gross expenditure.

NET EXPENDITURE BY STATE GOVERNMENTS ON CERTAIN WELFARE SERVICES, 1964-65 TO 1968-69

($'000)

Service and year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
1968–69—							
Relief of aged, indigent and infirm, child welfare, etc. .	17,274	12,918	6,122	3,524	3,605	1,947	45,389
Miners' phthisis	63	49	. .	. .	64	. .	176
Total	**17,337**	**12,967**	**6,122**	**3,524**	**3,669**	**1,947**	**45,565**
Total—							
1967–68.	15,858	11,346	5,840	3,147	3,170	1,968	41,330
1966–67.	14,469	10,422	5,360	3,054	3,348	1,664	38,317
1965–66.	13,271	9,216	4,406	2,606	3,142	1,455	34,096
1964–65.	12,299	8,426	4,110	2,188	2,700	1,311	31,034

CHAPTER 14

PUBLIC HEALTH

This chapter is concerned with the activities of the Commonwealth Department of Health (including quarantine, national health benefits, and Commonwealth grants for health purposes); activities of the State health departments; statistics of hospitals and nursing homes, hansenide hospitals, and mental health institutions; statistics of notifiable diseases, and chronic illnesses and impairments; and cremations. Statistics relating to causes of death are presented in Chapter 8, Vital Statistics (pages 185–90).

Further information about the administration of public health services is contained in the annual reports of the Commonwealth Director-General of Health; the annual reports of the State health authorities; and in the Year Books and Statistical Registers published by the State offices of the Bureau of Census and Statistics. For more detailed statistics of in-patient institutions, *see* the annual bulletin *Hospitals and Nursing Homes* (reference no. 16.1).

COMMONWEALTH GOVERNMENT ACTIVITIES

At the time of federation the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. Following on the passing of the *Quarantine Act* 1908 a branch of the Department of Trade and Customs, under the control of a Director of Quarantine, was created on 1 July 1909. The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes. The Commonwealth Government also gives financial assistance to certain organisations concerned with public health matters. A number of Commonwealth health organisations have been established; detailed information on the functions and operations of these organisations is given in Year Book No. 53, pages 561–6, and in the annual reports of the Commonwealth Director-General of Health.

Quarantine

The *Quarantine Act* 1908–1969 is administered by the Commonwealth Department of Health and has three sections of disease control, as follows: (i) human quarantine, which ensures that persons arriving from overseas are free of quarantinable disease; (ii) animal quarantine, which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports; and (iii) plant quarantine, which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth action is necessary for the protection of any State or States, and in general the administration of interstate movements of animals and plants is left in the hands of the States.

Human quarantine

All passengers and crews arriving in Australia from overseas, whether by air or sea, are subject to a medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports full-time quarantine officers carry out the work, but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by the Commonwealth Director of Health, who is a senior medical officer of the Commonwealth Department of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague, and typhus fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever, and measles are directed to appropriate care and placed in isolation where necessary.

Valid vaccination certificates are required of travellers to Australia as follows:

Smallpox. All arrivals from all countries except American Samoa, Antarctic Territories, Christmas (Indian Ocean), Cocos (Keeling) and Cook Islands, Fiji, Gilbert and Ellice Islands Colony (including Ocean and Fanning Islands), Hawaii, Lord Howe Island, Nauru, New Caledonia, New Hebrides, New Zealand, Niue and Norfolk Islands, Papua and New Guinea, Society Archipelago, Solomon and Tokelau Islands, Tonga, Western Samoa, provided travellers have not been outside these areas for at least fourteen days before arrival and that these areas are free from smallpox. Australia reserves the right, in respect of arrivals from other countries, to isolate any person who arrives by air without a smallpox vaccination certificate and refuses to be vaccinated. Children under one year of age are exempt. For passengers arriving in Australia by sea, exemption is granted to infants under twelve months of age and to persons who hold religious convictions against vaccination or who are suffering from a medical condition certified by a medical practitioner to contra-indicate smallpox vaccination.

Cholera. All arrivals from locally infected areas and from Burma, India, Indonesia, Republic of Korea, Malaysia, Pakistan, Philippines, Thailand, Republic of Vietnam. No certificate is required in respect of children under one year of age.

Yellow fever. All arrivals from yellow fever endemic zones.

All passengers, whether they arrive by sea or air, are required to give their intended place of residence in Australia, so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

Isolation. Under the Quarantine Act, airline and shipping operators are responsible for the expenses of isolation of all travellers who disembark and (i) have come from a cholera infected area, or a cholera area specified above, within 14 days and do not possess a cholera vaccination certificate; or (ii) have come from an endemic zone within 14 days and do not possess a yellow fever vaccination certificate; or (iii) arrive by air without a smallpox vaccination certificate and refuse to be vaccinated on arrival.

The numbers of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of overseas vessels and aircraft calling at Australian ports during 1968–69 and during the preceding four years are shown in the following tables.

HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES ON OVERSEAS VESSELS AND AIRCRAFT CALLING AT AUSTRALIAN PORTS, 1968-69

Disease	*Number of overseas vessels and aircraft on which cases were found*	*Number of cases of infectious disease*	
		Passengers	*Crew*
Chicken pox	22	41	..
Infectious hepatitis	2	2	..
Measles	18	203	1
Mumps	10	17	..
Rubella	4	8	..
Salmonella infection	1	1	..
Venereal Disease—			
Gonorrhoea	127	..	199
Syphilis			11
Other			38
Total	**(*a*) 184**	**272**	**249**

(*a*) On some vessels there were cases of more than one disease.

HUMAN QUARANTINE: OVERSEAS VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES FOUND, 1964-65 TO 1968-69

Year	*Number of overseas vessels and aircraft cleared*		*Number of overseas vessels and aircraft on which cases were found*	*Number of cases of infectious disease*	
	Ships	*Aircraft*		*Passengers*	*Crew*
1964–65	3,359	2,936	107	333	19
1965–66	3,488	3,297	201	360	122
1966–67	4,040	3,918	246	523	172
1967–68	4,440	4,968	238	312	289
1968–69	4,813	5,896	184	272	249

The provisions of the State Health Acts with regard to the compulsory notification of infectious diseases and statistics of cases notified in 1969 are dealt with on pages 438–9 of this chapter.

Animal quarantine

Animal quarantine, authorised by the provisions of the *Quarantine Act* 1908–1969, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Of the domesticated animals, only horses, dogs, cats, and poultry are admitted from a limited number of countries depending on diseases being absent in the country of origin. All must be accompanied by health certificates which may include prescribed tests. On arrival in Australia, they are subject to quarantine detention. Zoological specimens are imported into registered zoos, where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Raw animal products such as hair, types of wool skins, and hides are specially treated under quarantine control. Such items as raw meat and eggs, which cannot be sterilised, are admitted only from New Zealand. Other items may be treated to destroy any possible infection. Special attention is given to the importation of biological substances of animal origin. The Animal Quarantine Service is also responsible for the health certification of animals for export overseas in accordance with the requirements of the various countries.

The Division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine. The central administration is situated within the Health Department at Canberra, with a director, an assistant director and veterinary officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of that State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each State capital.

The Division participates in world-wide international notifications of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions. In matters of policy and the quarantine control of imports there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the General and Plant divisions of the quarantine service. Many diseases of animals are communicable to man, and for this reason animal and general quarantine administration are in some respects inseparable. Similarly the interests of animal and plant divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

Plant quarantine

Since 1 July, 1909 the importation into Australia of all plants or parts of plants, cuttings, seeds, and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the *Quarantine Act* 1908–1969, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine as applied to the entry of plants and plant material into Australia, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel, for which they are reimbursed by the Commonwealth. In 1921 the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Plant Quarantine Branch was created. It is controlled by a director who is responsible for policy and legislation and for co-ordinating the work of the State officers who carry out the detailed administration in their capacity as Commonwealth officers.

Any plant material found carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment. If treatment or return to sender is impracticable, the material may be destroyed. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles. Importation of plants likely to be infected with plant diseases or pests, of noxious plants or fungi, and of poison plants is prohibited. Agricultural seed, not restricted under quarantine legislation, must conform to standards of purity and insect pest and disease freedom. Seed of commercial crops which could introduce diseases are prohibited imports except with special permission. All plant products not specifically restricted, such as timber, logs, crates, furniture and articles containing bamboo, cane and rattan are subject to inspection upon arrival and treatment if necessary. Many commodities, including hops, cotton, peanuts in shell, potatoes, and certain crop seeds, may be imported only by approved importers under specified conditions. All nursery stock, including bulbs, must be grown in post-entry quarantine. Prior approval is necessary, and such material may be imported only by approved importers who are registered for this purpose. The number of plants which may be imported in any one year is limited. The importation of propagating material of commercial fruits, vines, and berries is permitted only after special prior approval and is subject to specific screening for virus by qualified authorities. Soil is a prohibited import, and any vehicles or goods contaminated with soil are required to be thoroughly cleaned, at the expense of the importer, before entry is permitted. (In order to prevent the spread of plant diseases and pests already in Australia, the various State Governments administer plant quarantine regulations under which the movement of certain plant materials or fruits from one State to another or to certain specified districts within a State is controlled.)

Expenditure from the National Welfare Fund on health benefits and services

For particulars of expenditure from all Commonwealth funds, analysed by function and economic type, *see* Chapter 18, Public Finance. This section deals with Commonwealth expenditure from the National Welfare Fund through which most Commonwealth health benefits and services are financed. The fund is not used to finance the cost of administering the benefits, or of capital works associated with benefits. For a brief description of the operation of this trust fund and details of expenditure from it on social welfare, *see* Chapter 13, Welfare Services. The following table shows expenditure from the Fund on national health benefits and miscellaneous health services.

COMMONWEALTH EXPENDITURE FROM THE NATIONAL WELFARE FUND STATES AND TERRITORIES, 1968-69

($'000)

Benefit, service, etc.	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(a)*
National health benefits—									
Pharmaceutical benefits—									
General (*b*)	24,769	18,225	9,149	6,030	4,391	1,731	(*c*)	(*d*)	64,296
To public hospitals	6,450	4,160	2,655	1,403	1,803	706	n.a.	136	(*e*)17,468
For pensioners	14,886	8,712	5,960	3,514	2,507	1,030	(*c*)	(*d*)	36,609
Hospital benefits	22,659	12,479	7,830	4,815	4,590	1,590	(*f*)(*g*)131	(*f*)(*g*)205	54,298
Nursing home benefits	13,524	6,468	4,861	2,944	2,812	1,010	..	25	31,643
Handicapped children's benefits(*h*)	19	7	9	33	3	5	..	..	76
Medical benefits—									
Insured patients	19,378	13,188	4,800	6,150	4,432	1,609	(*g*)	(*g*)	49,556
Pensioner patients	6,496	4,277	2,647	1,764	1,168	491	6	63	16,912
Tuberculosis Campaign(*i*)	4,619	3,487	2,570	631	645	397	28	3	12,381
Milk for school children	3,374	2,636	1,545	1,061	797	421	110	109	10,053
Miscellaneous health services—									
Commonwealth Health Laboratories	260	101	653	25	33	111	120	293	1,597
Blood products(*j*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(*k*)876
Home Nursing Scheme, subsidies to States	300	257	190	38	157	14	..	..	956
Radio-active isotopes(*l*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(*k*)257
Hearing aids(*m*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(*k*)558
Poliomyelitis and other vaccines(*j*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(*k*)380
Total health benefits and services	*116,734*	*73,997*	*42,868*	*28,409*	*23,338*	*9,116*	*395*	*833*	*297,918*
Social services	320.005	220,836	134,835	79,106	61,729	26,913	3,294	4,003	(*n*)851,356
Other(*o*)	4,325	4,379	2,010	1,177	760	305	3	118	13,076
Grand total	**441,064**	**299,212**	**179,714**	**108,692**	**85,827**	**36,334**	(*p*)**3,691**	(*p*)**4,955**	**1,162,350**

(*a*) Includes expenditure on some items which are not available by State and Territory. (*b*) Payments to approved chemists, doctors, and private hospitals. (*c*) Included in the amount shown for South Australia. (*d*) Included in the amount shown for New South Wales. (*e*) Includes pharmaceutical benefit payments not available by State: $135,000 for the Royal Flying Doctor Service; $3,000 for Commonwealth and immigration medical services; and $17,000 for biological products. (*f*) Payments on behalf of uninsured and pensioner patients only. (*g*) Payments to residents of the Northern Territory and the Australian Capital Territory who are insured with a hospital or medical fund are made through organisations registered in the States and are included in the amounts shown for the respective States. (*h*) Commenced 1 January 1969. (*i*) Includes allowances paid by the Department of Social Services. (*j*) Payments to Commonwealth Serum Laboratories to cover costs of processing and production. (*k*) Expenditure on this item is not available by State and Territory. (*l*) Costs of purchases by the Commonwealth X-ray and Radium Laboratory, including $135,000 for purchases made overseas. (*m*) Purchases of component parts by the Commonwealth Acoustic Laboratories, including $103,000 for purchases made overseas. (*n*) Includes $635,000 paid to residents living abroad. (*o*) Grants under the *Home Savings Grant Act* 1964, and contributions for losses on rental housing under the *Commonwealth and State Housing Agreement Act* 1945. (*p*) Incomplete, *See* earlier footnotes.

In the following paragraphs the function and nature of each of the benefits and services shown in the above table are described.

National health benefits

Pharmaceutical benefits

A comprehensive range of drugs and medicines is made available to all persons receiving treatment from a medical practitioner registered in Australia. The benefits are supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital. The patient pays the first 50 cents of the cost of a prescription dispensed by an approved pharmacist, but pensioners who are eligible for treatment under the Pensioner Medical Service (*see* page 425) receive all benefits without any contribution being made. Special arrangements exist to cover prescriptions dispensed at locations outside the normal conditions of supply, e.g. in remote areas. Total Commonwealth expenditure on pharmaceutical benefits in the year 1968–69 was $118,373,359.

The following table sets out the number of prescriptions and expenditure on the more frequently prescribed therapeutic preparations under the Pharmaceutical Benefits Scheme for 1967–68 and 1968–69. The expenditure for both years includes patient contributions, which totalled $20,129,402 in 1968–69. Prescriptions issued free to pensioners are included, and these amounted to $36,609,257 in 1968–69. Benefits dispensed by hospitals and those covered by special arrangements are not included; these amounted to $17,739,119 in 1968–69.

PRESCRIPTIONS DISPENSED UNDER THE PHARMACEUTICAL BENEFITS SCHEME(*a*) 1968 AND 1969

Therapeutic category	Year ended 30 June 1968 Prescriptions	1968 Expenditure	1969 Prescriptions	1969 Expenditure
	'000	$'000	'000	$'000
Broad spectrum antibiotics	5,049	13,619	6,039	16,386
Drugs acting on blood vessels	3,040	10,427	3,223	11,514
Penicillins	4,353	9,338	4,724	9,929
Diuretics	2,515	8,647	2,763	9,634
Analgesics	4,362	8,448	4,784	9,630
Sedatives and hypnotics	6,651	6,476	6,360	6,480
Anti-histamines	3,342	5,828	3,844	6,707
Drugs acting on genito-urinary infections	1,246	3,201	1,313	3,758
Anti-cholinergics	907	3,178	965	3,211
Tranquillisers	899	2,673	1,019	3,127
Antacids	1,896	2,429	2,017	2,750
Drugs acting on heart	1,259	2,338	1,284	2,303
Anti-diabetics	605	2,222	644	2,369
Eye drops	1,152	1,823	1,214	1,947
Anti-depressants	411	1,524	559	2,085
Anti-convulsants	387	1,504	405	1,644
Bronchial spasm preparations	934	1,459	1,215	2,157
Sulphonamides	1,078	1,422	1,050	1,380
Gastro-intestinal sedatives	665	1,212	674	1,249
Iron preparations	1,027	1,151	1,192	1,359
Expectorants and cough suppressants	1,072	898	1,549	1,301
Other therapeutic substances	12,573	17,603	13,571	19,844
Total	**55,423**	**107,420**	**60,408**	**120,764**

(*a*) Excludes benefits dispensed by hospitals and those covered by special arrangements.

Hospital, nursing home, handicapped children, and medical benefits

Details of the provisions and benefits of these schemes under the *National Health Act* 1953–1968 are set out in Year Book No. 55, pages 462–6. The hospital and medical insurance provisions were changed in 1969 to allow for free insurance under certain circumstances. As from 1 January 1970 the Government has made free hospital and medical insurance available to families whose income does not exceed $39.00 a week; to people on unemployment or sickness benefit; and to migrants during their first two months residence in Australia. Persons in these categories are entitled to hospital benefits in the form of payment of public ward fees in approved hospitals, and entitled to medical benefits equivalent to those available to contributors to the highest medical benefit table in their State. *See* Appendix for information regarding changes made by amendments to the National Health Act in 1970.

Expenditure on hospital, nursing home, and handicapped children benefits. The following table shows the amount of these Commonwealth benefits paid during 1968–69. This does not include expenditure on mental hospitals (*see* page 429).

COMMONWEALTH HOSPITAL, NURSING HOME, AND HANDICAPPED CHILDREN BENEFITS PAID STATES AND TERRITORIES, 1968-69

($'000)

Type of patient	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Uninsured patients (80c)	605	371	875	99	150	45	80	14	2,240
Insured patients ($2)(*a*)	8,508	5,169	2,306	2,037	1,722	684	(*b*)	(*b*)	20,425
Pensioner patients ($5)	9,034	5,540	4,388	2,105	2,375	836	51	191	24,520
Nursing home patients ($2)	(*c*)11,259	5,176	4,092	(*d*)2,373	2,293	846	(*d*)	(*c*)	26,039
Intensive care nursing home patients ($3)	(*c*)2,290	1,292	769	(*d*)571	519	164	(*d*)	(*c*)	5,605
Handicapped children ($1.50)(*e*)	19	7	9	33	3	5	..	..	76
Total	**31,715**	**17,555**	**12,438**	**7,219**	**7,061**	**2,581**	**131**	**205**	**78,905**

(*a*) Excludes payments of $7,113,208 towards special accounts deficits in 1968–69. (*b*) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organisation registered in one of the States, and payments to them are included in the respective States. (*c*) New South Wales includes Australian Capital Territory. (*d*) South Australia includes Northern Territory. (*e*) Introduced on 1 January 1969.

Registered hospital benefits organisations. The following table shows the number of registered hospital benefits organisations, the membership at 30 June 1969, and fund benefits paid during 1968–69. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members.

HOSPITAL BENEFITS: ORGANISATIONS AND FUND BENEFITS, STATES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Registered organisations at 30 June 1969(*a*)		(*b*)32	40	4	13	8	9	106
Membership at 30 June 1969	'000	1,507	1,191	328	419	317	115	(*c*)3,877
Fund benefits paid(*d*)	$'000	42,545	26,800	6,182	9,823	8,505	3,228	(*c*)97,083

(*a*) Excludes interstate branches. (*b*) Includes one organisation registered in the Australian Capital Territory (*c*) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organisation registered in one of the States, and payments to them are included in the respective States. (*d*) Includes $3,182,000 ancillary benefits.

Expenditure on medical benefits. The following table shows the number of registered medical benefit organisations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organisations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical benefit schemes is considerably higher than the number of contributors. At 30 June 1969 the estimated number of persons covered by contributory medical schemes was 9,017,000.

MEDICAL BENEFITS: SUMMARY, STATES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust(a)*
Registered organisations(*b*)(*c*)	No.	(*d*)28	19	6	8	8	9	78
Members(*c*)	'000	1,390	1,104	328	392	309	113	3,635
Medical services	'000	13,251	9,210	3,660	4,166	2,782	1,065	34,134
Commonwealth benefit(*e*)	$'000	18,516	13,052	4,795	6,097	4,345	1,606	48,411
Fund benefit(*f*)	$'000	24,699	14,747	5,640	6,354	4,888	1,704	58,031

(*a*) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organisation registered in one of the States. (*b*) Excludes interstate branches. (*c*) At end of period. (*d*) Includes one registered in the Australian Capital Territory. (*e*) Excludes payments of $1,145,623 towards special accounts deficits. (*f*) Includes $2,492,377 ancillary fund benefits.

Pensioner Medical Service

The Pensioner Medical Service, which commenced in 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the *National Health Services Act* 1948–1949. The service has been continued under the provisions of the *National Health Act* 1953-1969.

Persons eligible to receive the benefits of the Pensioner Medical Service are those who receive a full or part age, invalid or widow's pension, or a sheltered employment allowance, under the *Social Services Act* 1947–1969; or a full or part service pension under the *Repatriation Act* 1920–1969; and who are able to satisfy the means test in force immediately prior to 1 October 1969; and their dependants. Also eligible are persons in receipt of an allowance under the *Tuberculosis Act* 1948, and their dependants.

The benefits provided to eligible persons consist of free medical service of a general practitioner nature such as that ordinarily rendered in the surgery or at the patient's home, including treatment at home following an operation. Specialist services, general anaesthetics, the setting of fractures, and operations are not covered. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Most general practitioners are enrolled in the scheme and are paid on a fee-for-service basis by the Commonwealth Government.

Qualified persons are entitled to a wide range of medicines without charge at any pharmacy, on presentation of a doctor's prescription. Free hospital treatment is also provided for public ward patients in public hospitals.

At 30 June 1969 the total number of pensioners and dependants enrolled in the Pensioner Medical Service was 1,163,660, while the number of doctors participating in the scheme at that date was 6,417. During 1968–69 doctors in the scheme provided 9,157,078 services (visits and surgery consultations) for persons enrolled in the scheme. For these services they were paid $16,912,226. The average number of services rendered by doctors to each enrolled person was 8.1.

Anti-tuberculosis Campaign

Under an arrangement with the Commonwealth Government, each State conducts a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947–48. Thus the States carry out the physical or field work of the national campaign and the Commonwealth acts in an advisory, co-ordinating, and financial capacity. For this reason the Commonwealth has not found it necessary to make much use of its powers under Section 6 of the Tuberculosis Act. An advisory council, known as the National Tuberculosis Advisory Council, has been set up. There are twelve members, the chairman being the Commonwealth Director-General of Health.

To help reduce the spread of infection the Commonwealth Government pays allowances to persons suffering from infectious tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13 July 1950. The rates now payable are: married sufferer with a dependant wife, $29.75 a week; sufferer without a spouse but with a dependent child or children, $23.00 a week; dependent child or children under sixteen years of age and full-time student children from sixteen to twenty-one years, $2.50 a week for the first dependent child and $3.50 a week for each other dependent child (additional to child endowment); sufferer without dependants, $18.25 a week (reducible to $15.00 a week if a person is maintained free of charge in an institution). In addition to the above rates, there may be payable a mother's or guardian's allowance of $2.00 a week or supplementary assistance of up to $2.00 a week.

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a person receiving the married person rate, $17.00 a week; a person who is without a spouse or dependent female and is entitled to a 'single person' rate, $10.00 a week; and a person with a spouse but who is not entitled to a 'married person' rate, $8.50 a week.

Commonwealth expenditure. Expenditure by the Commonwealth Government on its anti-tuberculosis campaign is set out in the following tables. The figures for maintenance include administrative costs, and therefore the totals for allowances and maintenance differ from those shown for the tuberculosis campaign in the National Welfare Fund table on page 423.

COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN STATES AND TERRITORIES, 1968-69

($'000)

State or Territory	*Allowances*	*Maintenance (a)*	*Capital*	*Total*
New South Wales	314	4,353	572	5,239
Victoria	199	3,382	175	3,756
Queensland	226	2,353	39	2,618
South Australia	61	602	60	723
Western Australia	44	673	. .	717
Tasmania	46	380	2	428
Northern Territory	28	. .	. .	28
Australian Capital Territory	3	1	. .	4
Australia	**921**	**11,743**	**847**	**13,511**

(*a*) Includes $282,778 for administrative costs.

COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN: AUSTRALIA, 1964-65 TO 1968-69

($'000)

Year	*Allowances*	*Maintenance (a)*	*Capital*	*Total*
1964–65	1,458	10,354	696	12,508
1965–66	1,286	13,586	696	15,569
1966–67	1,193	11,247	499	12,939
1967–68	1,091	11,511	780	13,382
1968–69	921	11,743	847	13,511

(*a*) Includes administrative costs.

Anti-poliomyelitis campaign

Information concerning the initial production by the Commonwealth Government in 1955 of anti-poliomyelitis vaccine in Australia, and of the testing procedures which were carried out, is contained in Year Book No. 49 and earlier issues. Information regarding the campaign against poliomyelitis, using Salk vaccine, is contained in Year Book No. 53 (page 560) and in earlier issues.

Following a recommendation of the National Health and Medical Research Council in May 1966, all States except Victoria indicated that Sabin oral vaccination campaigns would be commenced during 1967. Sabin vaccine is now in use in all States and Territories.

Sabin vaccine is taken by mouth. Three doses of vaccine are given at intervals of at least eight weeks.

Free milk for school children scheme

The *States Grants (Milk for School Children) Act* 1950 was passed with the object of improving the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending government or non-government primary schools, including nursery schools, kindergartens, creches and missions for Aborigines, are eligible to receive free milk. The cost of the milk and half the capital or incidental costs, including administrative expenses of the scheme, are reimbursed by the Commonwealth to the States. All States now participate in the scheme. At the end of 1968 approximately 1,838,500 children were entitled to receive free milk under this scheme. Expenditure by the Commonwealth Government during the years 1964–65 to 1968–69 was as follows.

COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME
STATES AND TERRITORIES, 1964-65 TO 1968-69
($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65 .	2,881	2,069	1,215	760	640	389	72	60	8,085
1965–66 .	2,916	2,386	1,259	801	622	408	56	74	8,521
1966–67 .	3,073	2,394	1,400	860	701	451	77	93	9,049
1967–68 .	3,357	2,628	1,376	955	853	511	75	106	9,861
1968–69 .	3,380	2,641	1,549	1,065	800	431	110	109	10,085

The figures in the foregoing table differ slightly from those in the Welfare Fund table, as they include capital and administrative costs. Figures in the latter table represent only the cost of the milk.

Miscellaneous health services

Fifteen *Commonwealth Health Laboratories* have been established under the *National Health Act* 1953–1969, principally in country areas throughout Australia, to provide facilities for the investigations into public health and preventive medicine and to assist local medical practitioners in the investigation and diagnosis of disease. The laboratories are situated in the following centres: Albury, Alice Springs, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba, and Townsville. During 1968–69 these laboratories performed 4,186,261 examinations and tests (Nuffield points score system) in respect of 674,832 patients. Administrative costs were $1,596,546 and expenditure on plant and equipment was $176,360.

The *Commonwealth Serum Laboratories* are controlled by the Commonwealth Serum Laboratories Commission, which is a body corporate established under the *Commonwealth Serum Laboratories Act* 1961–1966. The main functions of the Commission are to produce and sell prescribed biological products used for therapeutic purposes and to ensure the supply of prescribed essential biological products in accordance with national health needs. These functions include research and development relating to prescribed biological products and allied fields, and the maintenance of potential production capacity for use in emergencies. The Commission is expected under the Act to generate sufficient revenue from the sale of its products to finance its activities relating to prescribed biological products. Certain services, determined by the Minister for Health from time to time, are payable by the Commonwealth. This includes reimbursement for the issue of a wide range of blood products which are processed from whole blood supplied by the Australian Red Cross Blood Transfusion Services and distributed throughout Australia free of charge for medical purposes.

The *Home Nursing Subsidy Scheme*, under the *Home Nursing Subsidy Act* 1956, provides for a Commonwealth subsidy to assist the States in the expansion of home nursing activities. Organisations eligible for the subsidy are those which are non-profit making, employ registered nurses, and receive assistance from a State Government, local government body or other authority established by or under State legislation. At 30 June 1969 there were 79 home nursing services in the States employing approximately 750 trained nurses. Commonwealth assistance to the States during 1968–69 was $956,129. Home nursing services in the Northern Territory and the Australian Capital Territory are provided by the Commonwealth Department of Health.

The *Commonwealth X-ray and Radium Laboratory* was originally established in 1929 as the Commonwealth Radium Laboratory, and has served from that time as the Commonwealth centre for radiological physics and as custodian of all Commonwealth-owned radium used for medical purposes. The laboratory's functions have expanded over the years to include the physical aspects of X-rays; the distribution of all radio-isotopes used in Australia for medical purposes; the maintenance of facilities for radio-chemical investigation; and the assay of radioactive substances in the Australian environment. The laboratory also provides assistance in matters relating to protection against ionising radiations and operates a film-badge service to monitor the radiation exposure of those who work with such radiation. In 1968–69 there were 2,482 deliveries of radio-isotopes, comprising 49 different isotopes, procured for use in medicine and medical reasearch. Of these, 1,946 deliveries were obtained from the Australian Atomic Energy Commission. Free issues for medical diagnosis and therapy supplied for patients throughout Australia were 86,944, the cost of $257,277 being met from the National Welfare Fund. Film badges, numbering 81,682, were processed, assessed, and reported on. The Laboratory also supplies radon to approved hospitals and private practitioners in Australia and New Zealand. In 1968–69, 24,941 millicuries of radon were issued. Administrative costs for 1968–69 were $284,214 and $47,683 was expended on plant and equipment.

The *Commonwealth Acoustic Laboratories* were established under the *Acoustic Laboratories Act* 1948 to undertake scientific investigations into hearing and problems associated with noise as it affects individuals. The laboratories also provide assistance in the general aural rehabilitation of ex-service personnel and school and pre-school children. The provision and maintenance of hearing aids is available free of charge to persons under twenty-one years of age, but replacement batteries must be purchased by those in remunerative employment. In April 1968 a hearing aid service was made available to pensioners for a nominal fee of $10. To qualify for assistance persons should be receiving an age, invalid or widow's pension or a sheltered employment allowance under the Social Services Act, a service pension under the Repatriation Act or an allowance under the Tuberculosis Act. Dependants of eligible persons are also entitled to the service. The cost of these services is met from the National Welfare Fund. The laboratories' functions also include the provision and maintenance of hearing aids on behalf of the Repatriation and other Commonwealth Departments. During 1968–69 the number of new cases examined at the laboratories was 27,601, including 7,791 children, 4,979 repatriation cases, 1,294 members of the defence forces, 11,601 pensioners and 880 civil aviation referrals; 17,214 calaid hearing aids were fitted and 40,295 maintained. The cost of supply and maintenance of hearing aids to persons under twenty-one years of age and pensioners was $558,054. Administrative costs of the laboratories were $745,791 and expenditure on plant and equipment $117,173.

Other Commonwealth health organisations

The National Health and Medical Research Council was established in 1936 to replace the National Health Council. Its main functions are to advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public, and on medical research. It also advises the Commonwealth and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition. The Council advises the Commonwealth Minister for Health on the application of expenditure from the Medical Research Endowment Fund which was established under the *Medical Research Endowment Act* 1937 to provide assistance to departments of the Commonwealth or of a State engaged in medical research; to universities for the purpose of medical research; to institutions and persons engaged in medical research and in the training of persons in medical research. The Commonwealth makes a triennial appropriation for the Fund, that for 1970 to 1972 being $6,262,000.

The *School of Public Health and Tropical Medicine* was established in 1930 by the Commonwealth Government at the University of Sydney under an agreement with that University. It provides training for medical graduates and students in public health and tropical medicine in addition to research and consultative activities in these and allied fields. During 1968–69, 6 diplomas were awarded in Public Health and 7 in Tropical Medicine and Hygiene. Costs met by the Commonwealth during 1968–69 were $515,936 for administration and $26,622 for plant and equipment.

The Institute of Child Health is associated with the School of Public Health at the University of Sydney and with the Royal Alexandria Hospital for Children at Camperdown. Its activities include research into medical and social problems of childhood, undergraduate and post-graduate teaching at the University of Sydney and collaboration with other national and international organisations concerned with child health and disease. Costs of the Institute paid by the Commonwealth during 1968–69 were $106,815 for administration and $87,675 for plant and equipment.

The *Commonwealth Bureau of Dental Standards* operates under Section 9 of the *National Health Act* 1953–1969. It is part of the Commonwealth Department of Health and is concerned with research, standards and testing related to dental and allied materials and processes. Its functions include the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials. The number of these products tested during 1968–69 was 213. Expenditure on plant and equipment was $16,997.

The *Australian Institute of Anatomy* is also part of the Commonwealth Department of Health. The scientific research work of the Institute is mostly concentrated on problems of nutrition by field surveys of dietary status and laboratory investigation into the biochemistry of nutrition and metabolism. During 1968–69 work continued to be directed towards nutritional problems in the Territory of Papua and New Guinea. The Institute also contains a museum section which includes a display of anatomical specimens and models.

The *National Biological Standards Laboratory* was set up under the *Therapeutic Substances Act* 1953–1959 which empowers the Commonwealth to ensure that therapeutic substances used for the prevention, diagnosis, and treatment of disease in man and animals are safe, pure, and potent. The Commonwealth Director-General of Health is authorised under the Act to set up laboratories to test such substances. Of the 1,439 samples examined by the Laboratory during 1968–69, 350 failed to meet the required standards. In addition, 1,022 safety tests were performed, 29 were failed, and 8 were deferred for further testing. Administrative costs for 1968–69 were $671,590 and $116,483 was expended on plant and equipment.

Commonwealth grants to States

Grants for mental hospitals

Following a survey of the Mental health facilities and needs in Australia made in 1955, the Commonwealth made an offer of $20 million to the States as part of a capital expenditure programme of $60 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer. By 1963 more than three-quarters of the total grant under the *States Grants (Mental Institutions) Act* 1955 had been distributed and the Commonwealth Government announced in November 1963 its intention of continuing assistance to the States towards capital costs on a similar basis, but without overall limit, for a period of three years. In May 1964 the *States Grants (Mental Health Institutions) Act* 1964 was passed to implement that policy. This Act provided for the continuation of Commonwealth aid of $1 for every $2 of capital expenditure by the States on mental health facilities for the three-year period ending 30 June 1967. With the passing of the *States Grants (Mental Health Institutions) Act* 1967, this date has been extended to 30 June 1970. The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government from 1964–65 to 1968–69.

EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH GOVERNMENT: STATES, 1964-65 TO 1968-69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
1964–65(*a*)	659	711	225	265	447	197	2,504
1965–66	1,717	1,567	146	242	338	529	4,539
1966–67	2,217	1,192	288	193	260	823	4,973
1967–68	2,095	1,381	196	63	148	358	4,243
1968–69	1,925	1,200	323	433	375	399	4,655

(*a*) Expenditure for 1964–65 includes final grants, totalling $406,454, made under the 1955 Act as follows: New South Wales, $274,938; Queensland, $21,210; and South Australia, $110,306.

There are no mental hospitals in the Northern Territory or in the Australian Capital Territory.

Paramedical Services

The *States Grants (Paramedical Services) Act* 1969 provides for the Commonwealth to share on a $1 for $1 basis with participating States the cost of approved paramedical services, such as chiropody, occupational therapy, physiotherapy and speech therapy, provided wholly or mainly for aged persons in their homes. It is estimated that grants in 1969–70 will amount to $190,000.

Commonwealth grants to organisations associated with public health

In addition to providing the services mentioned on pages 419–29, the Commonwealth Government gives financial assistance to certain organisations concerned with public health. Examples of organisations included in this category are given in the following text. More detailed information on their operations and functions is given in Year Book No. 53, pages 570–3.

The Commonwealth National Fitness Council operates under the *National Fitness Act* 1941–1969. Its main function is to advise the Minister for Health concerning the promotion of national fitness. The Act also provides for the establishment of a trust account, known as the National Fitness Fund, to assist in financing the movement. During 1968–69 the Commonwealth's contribution to the Fund was $368,000, of which $68,000 was for assistance towards capital expenditure. Expenditure from the Fund during 1968–69 was $351,069, distributed as follows: State National Fitness Councils, $224,908; State Education Departments, $34,000; State Universities $24,800; Australian Recreation Leadership Course, $4,000; capital expenditure on national fitness projects, $51,038; grants to Australian Capital Territory organisation, $5,800; and administration, $6,523.

The Royal Flying Doctor Service is a non-profit organisation providing medical services in the remote areas of Australia. It is distinct from, but co-ordinates with, the Aerial Medical Services operated by the Commonwealth Department of Health from Darwin and Alice Springs in the Northern Territory. The Royal Flying Doctor Service is financed mostly from donations and government contributions. During 1968–69 the Commonwealth Government contributed $350,000, of which $170,000 was for capital expenditure, and $180,000 towards operating costs. The Service made 3,161 flights during 1968–69, travelling 1,422,460 miles and transporting 3,399 patients. In the same period medical staff conducted a total of 75,704 consultations and dental treatment was given to 3,791 patients. The radio network of the Service handled 327,416 telegrams.

The Red Cross Blood Transfusion Service is conducted by the Australian Red Cross Society throughout Australia. The operating costs of the service in the States are met by the State Governments paying 60 per cent; the Commonwealth, 30 per cent; and the Society, 10 per cent. In the Northern Territory and Australian Capital Territory the Commonwealth pays 90 per cent and the Society 10 per cent. Commonwealth expenditure for each State and Territory during 1968–69 was as follows: New South Wales, $195,705; Victoria, $193,348; Queensland, $138,534; South Australia, $115,042; Western Australia, $74,985; Tasmania, $25,364; Northern Territory, $13,854; and the Australian Capital Territory, $8,440, making a total of $765,272 compared with $655,565 for 1967–68.

Lady Gowrie Child Centres were established in 1940 by the Commonwealth Government in each of the six State capitals. The functions of these centres include specialised demonstration and research relating to problems of physical growth and nutrition, physical and mental development, and also to test and demonstrate methods for the care and instruction of the young child. The centres are administered by local committees under supervision of the Australian Pre-school Association and are financed mainly by Commonwealth grants. The Commonwealth contribution for 1968–69 was $120,000 for the Centres and $14,800 for the Australian Pre-school Association.

The *National Heart Foundation of Australia* is a private national organisation established to promote research in cardiovascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases. Formed in 1960, as a result of a public appeal yielding $5 million to which the Commonwealth Government contributed $20,000, the Foundation has its headquarters in Canberra. From its inception to the end of 1969 the Foundation has allocated more than $3 million for grants-in-aid towards research in university departments, hospitals and research institutes; research fellowships tenable in Australia and overseas; and overseas travel grants. Most of the annual expenditure of about $700,000 is devoted to supporting research into cardiovascular disease.

The *World Health Organization* (WHO) is a specialised agency of the United Nations acting as a directing and co-ordinating authority on international health work. It also provides health services and facilities to people of trust territories and other groups if requested by the United Nations. Australia was represented at the Twenty-second World Health Assembly held at Boston in July 1969, and at the Twentieth Western Pacific Regional Committee Meeting at Manila in September 1969. The Commonwealth contribution to WHO during 1968–69 was $765,814, which included a grant of $12,000 to the Commonwealth Serum Laboratories for WHO influenza research.

The *International Agency for Research on Cancer* was established by the World Health Organization, and participation by Australia was approved by the Government in 1965. The objectives of the Agency are to promote international collaboration in cancer research and to provide a means through which countries and interested organisations may co-operate in the stimulation and support of research into cancer. The Commonwealth contribution to the Agency in 1968–69 was $134,771.

STATE GOVERNMENT ACTIVITIES

(Includes activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory)

Public health legislation and administration

For details of the administration of health services in each State, the Northern Territory, and the Australian Capital Territory, *see* pages 543–50 of Year Book No. 53. For administrative changes which took place in 1968, *see* page 457 of Year Book No. 55. The following paragraphs refer briefly to recent administrative changes.

In *New South Wales*, the Health Education Section of the Department of Public Health was elevated to the status of a Division, and has commenced surveys to determine community needs and advise on programmes consistent with these needs. The Noxious Trades Act, 1902 has been amended to extend the provisions of the Act to the whole of the State. The amendment enabled the councils of the few remaining municipalities and shires not previously covered by the Act to take necessary measures to control noxious trades in their areas. It also brought about an increase in fees for the licensing of noxious trades. The Hospitals Commission has tentatively allocated all public hospitals in the State to regions in order to assist with the planning for complete regionalisation of hospital services. Provision has been made for three Sydney metropolitan regions, and so far the Newcastle and Hunter Valley Region, Riverina Region, the North Western Region, and the Metropolitan Western Region have been established.

In *Queensland*, the *Chiropodists Act of* 1969 was brought into operation and a registration board of seven members constituted. Subject to this Act, a person is entitled to be registered as a chiropodist in Queensland if he applies to the Board, pays the prescribed fee for registration, and satisfies the Board that he is of good character and is suitably qualified.

In *Tasmania*, the *Alcohol and Drug Dependency Act* 1968 was introduced to make provision for the treatment and control of persons suffering from alcohol and drug dependency. Its main aim is to detect alcohol and drug dependents in the early stages and provide for their early treatment and rehabilitation. The *Pesticides Act* 1968 was introduced to make provision for contemporary requirements for the control, sale and use of pesticides. The *Fluoridation Act* 1968 was introduced to make provision for the addition of fluoride to public water supplies.

In the *Australian Capital Territory*, the Ambulance Service was transferred from the Canberra Community Hospital to the A.C.T. Health Services Office in February 1968. The operation of Infant Welfare Centres was transferred from the Canberra Mothercraft Society to the A.C.T. Health Services Office in July 1969. The Canberra Abattoir was purchased by a private company from the Commonwealth Government in 1969; however, meat inspection and supervision of hygiene is maintained by officers of the A.C.T. Health Services Office.

Supervision and care of infant life

Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government, local government and private organisations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by infant welfare centres, baby clinics, creches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. (Information about infant mortality will be found in Chapter 8, Vital Statistics.) Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons.

Under the provisions of the *Social Services Act* 1947–1969 maternity allowances provide financial assistance towards the expenses associated with the birth of children. Information about maternity allowances is given in Chapter 13, Welfare Services.

Nursing activities

Several State Governments maintain institutions which provide treatment for mothers and children and, in addition, subsidies are granted to various associations engaged in welfare work.

Infant welfare centres. The following table gives particulars of the activities of infant welfare centres for the year 1969. The figures relate to all centres, whether permanently staffed or on a temporary or part-time basis. Centres may be located at accommodation specially provided for this purpose, or at halls, schools, etc.

INFANT WELFARE CENTRES: STATES AND TERRITORIES, 1969

	N.S.W.	*Vic.*	*Qld(a)*	*S.A.(a)*	*W.A.*	*Tas.*	*N.T.(a)*	*A.C.T.*	*Aust.*
Number of centres	443	715	301	284	139	111	27	33	2,053
Attendances at centres	1,096,082	1,537,963	470,313	270,522	265,314	147,636	25.098	58.022	3,870.950
Visits by nurses to homes	n.a.	157.753	1,861	34,846	28,662	77,569	8,933	7,030	n.a.
Visits by nurses to hospitals	n.a.	26,335	30,034	n.a.	18,825	n.a.	1,354	..	n.a.

(*a*) Year ended 30 June 1969

Mobile units are used to service centres in some States. In 1969, the numbers of units and centres served, included in the above table, were as follows: Victoria, 4 and 11; Queensland, 3 and 30; South Australia, 2 and 20; Western Australia, 3 and 63; and the Northern Territory, 1 and 6. The number of centres for Tasmania includes 13 areas visited by sisters in cars.

Since 1930, the number of attendances at the infant welfare centres has increased more than four-fold. The numbers of attendances at ten year intervals since 1930 were as follows: 1930, 919,893; 1940, 2,035,299; 1950, 3,049,375; 1960, 3,482,383; and 1969, 3,870,950.

Bush Nursing Associations. Treatment for mothers and children is also provided by the Bush Nursing Associations. The numbers of centres maintained by the Associations in 1969 were: New South Wales, 16; Victoria, 58; Queensland, 5; South Australia, 33; Western Australia, 19; and Tasmania, 1. In Tasmania, all but one of the district nursing centres have been taken over by the nearest public hospital and are no longer distinct entities.

Medical and dental inspection of school children

For details of the administration of school health services in each State, the Northern Territory, and the Australian Capital Territory, *see* Year Book No. 55, pages 458–61. Further information about the operation of the school medical and dental services is given in State Year Books. The following paragraphs summarise features common to most States.

Medical and dental inspection of school children is carried out in all States under the control of State health departments, and in the Northern Territory and the Australian Capital Territory under the control of the Commonwealth Department of Health. The school health services are available to both government and non-government schools in metropolitan areas and larger country towns. In some States, special arrangements are made for children attending schools in more remote country areas.

The aim of the school medical services is to medically examine all children at least once during their school careers, usually on entry into primary school. Review examinations or, in some States, tests of vision and hearing by school nurses, are conducted in upper-primary and lower secondary grades. Parents or guardians are notified of any departure from normal health and advised to seek further attention if necessary.

The aim of the school dental services is to examine and give regular dental treatment to children. Usually, acceptance for treatment is limited to children in primary schools. Some school children are treated at hospital dental clinics. Aboriginal missions and orphanages are also visited by school dentists. The consent of a parent or guardian is necessary before treatment can be given. In some States, priority is given to children who live in areas beyond the easy reach of other dental services. Treatment in remote areas is facilitated by the use of travelling dental clinics.

The following table summarises school health services in the States and Territories. Uniform concepts and definitions, have not been developed, so Australian totals have not been shown.

SCHOOL HEALTH SERVICES: STATES AND TERRITORIES, 1969

	N.S.W.	*Vic.*	*Qld(a)*	*S.A.*	*W.A.*	*Tas.*	*N.T.(a)*	*A.C.T.*
School medical services—								
Staff (*b*)—								
Medical officers . .	78	43	4	12	7	12	3	3
School nurses . .	88	47	29	10	16	30	6	3
Medical examinations—								
Children examined .	218,288	207,286	188,946	(*c*)94,183	n.a.	(*c*)25,176	(*d*)2,444	(*d*)17,008
Found with defects .	33,521	n.a.	5,399	(*c*)15,410	11,278	6,013	(*e*)1,200	1,761
School dental services—								
Number of dental clinics—								
Stationary . . .	8	3	. .	6	5	27	. .	26
Mobile . . .	(*f*)19	12	(*g*)4	6	6	23	3	1
Staff(*b*)—								
Dental officers . .	32	34	16	14	14	24	n.a.	16
Dental assistants and nurses . . .	39	39	. .	12	11	47	n.a.	26
Dental examinations—								
Children examined .	71,653	31,887	(*h*)27,418	6,268	11,048	n.a.	12,370	12,695
Number treated . .	21,337	24,710	(*h*)8,916	5,000	2,800	42,994	n.a.	11,165

(*a*) Year ended 30 June 1969. (*b*) Full-time and part-time. (*c*) Excludes some children tested for hearing and vision by school sisters. (*d*) Includes pre-school children. (*e*) Partly estimated. (*f*) There is also a dental team with the Royal Flying Doctor Service (based at Broken Hill). (*g*) In addition, portable dental equipment is possessed by 13 dental officers who function from departmental vehicles. (*h*) Only children who reside in more remote areas.

HOSPITALS AND OTHER STATISTICS

This section provides statistical information on hospitals and nursing homes; notifiable diseases; a survey of chronic illnesses and impairments; and cremations. The institutions referred to under this heading are classified into the following groups: public hospitals and nursing homes; private hospitals and nursing homes; repatriation hospitals; hansenide hospitals; and mental health institutions. Statistics of quarantine stations, and of hospitals maintained by the Armed Services, are not included.

Public hospitals and nursing homes

The statistics shown for public hospitals and nursing homes refer to the following institutions: *New South Wales*—all institutions which are under the authority of the New South Wales Hospitals Commission, and which receive a government subsidy during the year, and the six State hospitals and nursing homes under the control of the Department of Public Health; *Victoria*—all subsidised hospitals and subsidised hospitals for the aged under the authority of the Victorian Hospitals and Charities Commission, two tuberculosis sanatoria, and the Peter MacCallum Clinic, but not the infectious diseases block at the Fairfield Hospital; *Queensland*—all hospitals controlled by the State Government or by the State hospital boards, including some institutions for out-patients or first-aid treatment only and some other hospitals which provide public accommodation in the form of public wards or designated public beds; *South Australia*—all hospitals controlled and maintained by, or which receive a regular annual grant or subsidy for maintenance purposes from, the South Australian Government, and hospitals controlled and maintained by local government or semi-governmental authorities; *Western Australia*—all departmental and subsidised board hospitals, including the Perth Dental Hospital; *Tasmania*—all public hospitals designated as such by the Director-General of Health Services, together with three homes for the aged, and one chest hospital; *Northern Territory*—departmental hospitals at Darwin, Alice Springs, Tennant Creek, and Katherine; *Australian Capital Territory*—the Canberra Hospital and the Queen Elizabeth II Coronation Home for post-natal care.

A number of institutions classified by the Commonwealth Department of Health as 'public' hospitals or nursing homes are not included in the statistics of public hospitals and nursing homes: there were 102 such institutions at June 1968, with an approved bed capacity of 4,475.

Number, staff and accommodation

PUBLIC HOSPITALS AND NURSING HOMES: NUMBER, STAFF AND ACCOMMODATION, STATES AND TERRITORIES, JUNE 1968

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Number of hospitals and nursing homes .	268	157	145	66	95	25	4	2	762
Medical staff—									
Salaried	1,363	1,482	862	346	205	170	39	20	4,487
Other(*a*)	5,090	2,239	204	565	408	157	. .	171	8,834
Nursing staff(*b*) . .	19,362	14,089	6,729	4,549	4,656	1,898	313	640	52,236
Accommodation—									
Number of beds and cots	28,062	17,301	13,628	5,004	6,672	2,943	566	592	74,768

(*a*) Includes honorary and visiting medical officers who may hold appointments at more than one hospital.
(*b*) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides, and nursing aide trainees.

In-patients treated

The following table gives particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital or nursing home twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital or nursing home after their mothers' discharge.

PUBLIC HOSPITALS AND NURSING HOMES: IN-PATIENTS TREATED STATES AND TERRITORIES, 1967-68

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
In-patients at beginning of year—									
Males	9,505	n.a.	3.589	1,475	2,129	906	205	n.a.	n.a.
Females	11.793	n.a.	4,959	1,909	2,533	1,044	213	n.a.	n.a.
Persons	21,298	12,959	8.548	3,384	4,662	1,950	418	450	53.669
Admissions and re-admissions during year—									
Males	236,375	n.a.	114,888	53,625	59,895	17,876	6,175	n.a.	n.a.
Females	342,924	n.a.	144,195	65,826	71,623	24,411	6,915	n.a.	n.a.
Persons	579.299	337,863	259,083	119,451	131,518	42,287	13,090	18,071	1.500.662
Total in-patients (cases) treated—									
Males	245,880	n.a.	118,477	55,100	62.024	18.782	6,380	n.a.	n.a.
Females	354,717	n.a.	149,154	67,735	74,156	25,455	7,128	n.a.	n.a.
Persons	600,597	350,822	267,631	122,835	136,180	44.237	13,508	18.521	1,554,331
Discharges and deaths—									
Males	236,217	n.a.	114,678	53,545	59.820	17,865	6,153	n.a.	n.a.
Females	343.048	n.a.	144,200	65,754	71,560	24,267	6,912	n.a.	n.a.
Persons	579.265	337,573	258.878	119,299	131,380	42,132	13,065	18,042	1,499,634
In-patients at end of Year—									
Males	9,663	n.a.	3,799	1,555	2,204	917	227	n.a.	n.a.
Females	11.669	n.a.	4,954	1,981	2,596	1,188	216	n.a.	n.a.
Persons	21,332	13,249	8,753	3,536	4,800	2,105	443	479	54,697
Average daily number resident	20,929	13,014	8,561	3,435	4.648	2,004	398	478	53,467

In addition to those admitted to the hospitals and nursing homes, there are large numbers of out-patients treated. During 1967–68 there were approximately 1,823,000 out-patients treated in New South Wales, 837,000 in Victoria, 971,000 in Queensland, 161,000 in South Australia, 280,000 in Western Australia, 119,000 in Tasmania, 146,000 in the Northern Territory (includes two clinics), and 29,000 in the Australian Capital Territory, making an estimated total for Australia of 4,365,000. The figures quoted refer to cases, as distinct from persons and attendances.

Revenue and expenditure

Details of revenue and expenditure for the year 1967–68 are shown in the next table. 'Government aid' includes municipal aid which was shown as a separate revenue item for some States in previous Year Books. Commonwealth pharmaceutical benefits and tuberculosis allowances paid direct to the institutions have also been included as 'government aid'.

Commonwealth hospital and nursing home benefits paid direct to public hospitals and nursing homes (in either full or part payment of fees incurred by pensioners and other uninsured patients) are treated on the same basis as Commonwealth benefits used to reimburse insured patients, and included in the amounts shown for 'fees'. Details of Commonwealth expenditure on each of the different categories of hospital benefits are shown on pages 424–5.

For some States, expenditure on capital items out of hospitals' own funds are not included in the figures shown. Comparison between the States should therefore be made with caution.

PUBLIC HOSPITALS AND NURSING HOMES: REVENUE AND EXPENDITURE STATES AND TERRITORIES, 1967-68

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Revenue—									
Government aid	91,254	59,924	(*a*)35,579	18,679	28,103	11,714	3,407	3,166	251,826
Public subscriptions, legacies, etc.	177	(*b*)7,779	209	767	108	..	..	..	9,041
Fees	60,916	39,850	11,397	10,377	13,383	3,464	469	1,445	141,302
Other	1,779	2,188	4,654	1,215	1,072	37	..	69	11,015
Total revenue	*154,126*	*109,740*	*51,840*	*31,039*	*42,667*	*15,215*	*3,876*	*4,680*	*413,183*
Expenditure—									
Salaries and wages	94,615	64,841	28,659	17,661	21,404	8,594	2,246	2,832	240,851
Upkeep and repair of buildings and grounds	4,353	2,197	1,579	1,167	3,937	257	330	259	14,078
All other maintenance	40,403	24,258	16,671	8,890	11,544	3,580	1,142	1,127	107,615
Total maintenance	139,370	91,296	46,909	27,717	36,884	12,431	3,718	4,218	362,544
Capital	14,877	16,936	5,177	3,403	5,568	2,876	158	330	49,325
Total expenditure	*154,247*	*108,232*	*52,086*	*31,121*	*42,452*	*15,307*	*3,876*	*4,548*	*411,869*

(*a*) Excludes loans from semi-government authorities; these loans are included in 'other' revenue. (*b*) Includes transfers from hospital reserve accounts.

Summary for Australia

A summary of statistics relating to public hospitals and nursing homes in Australia is given in the following table.

PUBLIC HOSPITALS AND NURSING HOMES: AUSTRALIA, 1963-64 TO 1967-68

		1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
Hospitals and nursing homes		756	761	766	765	762
Medical staff—						
Salaried		3,428	3,674	3,967	4,125	4,487
Other(*a*)		7,980	8,389	8,824	8,728	8,834
Nursing staff (*b*)		43,762	45,244	47,656	49,640	52,236
Beds and cots		69,230	70,043	71,226	73,748	74,768
Admissions		1,325,934	1,364,077	1,395,519	1,439,959	1,500,662
Total in-patient (cases) treated		1,374,471	1,416,388	1,447,900	1,494,709	1,554,331
Average daily number resident		49,047	49,732	50,161	52,331	53,467
Out-patients (cases)(*c*)		3,342,000	3,579,000	3,820,000	3,993,000	4,365,000
Revenue	$'000	282,021	310,687	341,741	376,343	413,183
Expenditure	$'000	284,791	309,434	341,007	377,457	411,869

(*a*) Includes honorary and visiting medical officers, who may hold appointments at more than one hospital. (*b*) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides, and nursing aide trainees. (*c*) Partly estimated.

Private hospitals and nursing homes

The figures shown in the following table refer to those private hospitals and nursing homes which have been approved for the payment of Commonwealth hospital benefits under the *National Health Act* 1953–1969. A small number of institutions classified as 'private' by the Commonwealth Health Department are included in public hospital statistics, and these have been omitted from the following two tables. Statistical information about patients, staff and finance of these institutions is not available on a uniform Australia-wide basis.

PRIVATE HOSPITALS AND NURSING HOMES: STATES, 1964 TO 1968

State	30 June— 1964	1965	1966	1967	1968
NUMBER OF PRIVATE HOSPITALS AND NURSING HOMES					
New South Wales	527	531	527	535	541
Victoria	288	306	309	313	310
Queensland	136	146	149	152	155
South Australia(a)	162	176	177	184	185
Western Australia	85	91	95	96	102
Tasmania	41	42	45	42	43
Australia	**1,239**	**1,292**	**1,302**	**1,322**	**1,336**
NUMBER OF BEDS FOR PATIENTS					
New South Wales	12,647	13,626	14,503	15,825	17,016
Victoria	6,371	6,797	7,117	7,295	7,267
Queensland	3,818	4,362	4,416	4,630	4,908
South Australia(a)	3,837	4,081	4,166	4,361	4,542
Western Australia	2,627	2,846	2,898	3,029	3,333
Tasmania	925	982	1,033	1,038	1,084
Australia	**30,225**	**32,694**	**34,133**	**36,178**	**38,150**

(a) Includes one institution in the Northern Territory.

There were no institutions of this nature in the Australian Capital Territory in 1968.

Repatriation hospitals

The medical care of eligible ex-servicemen and dependants of deceased ex-servicemen is a major function of the Commonwealth Repatriation Department, which provides a comprehensive service.

In-patient treatment is provided at Repatriation General Hospitals in each capital city, at six auxiliary hospitals and at one sanatorium. In-patient treatment may also be provided in country hospitals at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by the State authorities.

Details of patients, staff and expenditure on Repatriation institutions and other medical services are given in Chapter 5, Repatriation.

Hansenide hospitals

There are four isolation hospitals in Australia for the care and treatment of persons suffering from Hansen's disease (leprosy). The numbers of isolation patients at these hospitals at 31 December 1969 were: Little Bay (New South Wales), 9; Fantome Island (North Queensland), 13; Derby (Western Australia), 151; and East Arm Settlement (Northern Territory), 9. In addition, there were 83 voluntary patients resident in the East Arm Settlement, mostly for the purpose of reconstructive surgery. With the exception of the Institute of Tropical Medicine at Little Bay, nursing services are provided mostly by sisters of religious orders under supervision of Government medical officers.

Special wards for the isolation and treatment of leprosy patients are also provided at other centres. The location of these wards and the number of isolation patients resident at 31 December 1969, were: Fairfield (Victoria), 3; Princess Alexandra Hospital (Queensland), 4.

Mental health institutions

The presentation of meaningful statistics of mental health services has become increasingly difficult because of changes in recent years in the institutions and services for the care of mental patients. The emphasis has shifted from institutions for care of patients certified insane to a range of mental health services provided for in-patients and out-patients at psychiatric hospitals, admission and reception centres, day hospitals, out-patient clinics, training centres, homes for the mentally retarded and geriatric patients, psychiatric units in general hospitals, and the like.

To enable valid comparisons to be made of mental health statistics in each State the mental health authorities of all States have proposed standard statistical definitions. The statistical recording systems of a number of States are currently being reviewed for this purpose. Meanwhile certain limited information is available which is shown in the following paragraphs. Since a common measure has not yet been achieved, the figures for States should not be added to form Australian totals.

In-patient institutions

The following table shows the number of major in-patient institutions in each State in 1968, the accommodation they provide for patients, and their staff. In-patient care for voluntary patients is also provided at many general public and a number of private hospitals. There are also psychiatric units attached to gaols, juvenile corrective centres and similar institutions. Only the following institutions are included in this table: *New South Wales*—the fourteen State psychiatric centres (a psychiatric hospital and associated admission centre being regarded as one psychiatric centre) and the two authorised private psychiatric hospitals (several other institutions provide in-patient care for voluntary patients only, but are excluded from the scope of the statistics); *Victoria*—the four psychiatric hospitals, ten mental hospitals, five informal hospitals, and ten intellectual deficiency training centres and schools; *Queensland*—four mental hospitals and one epileptic home; *South Australia*—four mental hospitals; *Western Australia*—the three approved mental hospitals; and *Tasmania*—the Lachlan Park-Royal Derwent hospital complex.

MENTAL HEALTH: IN-PATIENT INSTITUTIONS, ACCOMMODATION AND STAFF STATES AT 30 JUNE 1968

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*
In-patient institutions	16	(*a*)29	5	4	3	1
Beds and cots for patients	11,480	(*b*)9,249	3,890	2,230	1,406	1,030
Staff—Medical	(*c*)231	(*a*)150	(*d*)31	27	17	10
Nursing	(*e*)3,523	(*a*)(*e*)3,016	(*d*)1,232	701	497	331

(*a*) At 31 December 1968. (*b*) The number of beds and cots occupied on 31 October 1968. (*c*) Includes visiting specialists who are paid for their services. (*d*) Full-time staff only. (*e*) Includes attendants.

There are no separate in-patient institutions for mental patients in the Northern Territory or the Australian Capital Territory. With the appointment of a Director of Psychiatric Services the organisation of a psychiatric service was begun in the Australian Capital Territory in 1967–68.

Patients

The following table sets out statistics of in-patients under the care of the respective State mental health services.

IN-PATIENTS UNDER THE CARE OF STATE MENTAL HEALTH SERVICES, 1967-68

	N.S.W.	*Vic.(a)(b)*	*Qld*	*S.A.*	*W.A.*	*Tas.*
In-patients at beginning of year—						
Males	6,463	5,453	2,387	1,361	1,277	460
Females	5,542	5,044	1,523	1,136	901	461
Persons	12,005	10,497	3,910	2,497	2,178	921
Admissions and re-admissions during year—						
Males	8,274	6,016	929	1,351	1,473	637
Females	8,039	6,336	612	1,382	1,183	569
Persons	16,313	12,352	1,541	2,733	2,656	1,206
Total in-patients (cases) treated—						
Males	14,737	11,469	3,316	2,712	2,750	1,097
Females	13,581	11,380	2,135	2,518	2,084	1,030
Persons	28,318	22,849	5,451	5,230	4,834	2,127
Discharges, including deaths—						
Males	8,410	6,123	1,057	1,400	1,527	661
Females	8,350	6,400	658	1,365	1,216	552
Persons	16,760	12,523	1,715	2,765	2,743	1,213
In-patients at end of year—						
Males	6,327	5,346	2,259	1,312	1,223	436
Females	5,231	4,980	1,477	1,153	868	478
Persons	11,558	10,326	3,736	2,465	2,091	914

(*a*) Year ended 31 December 1968. (*b*) Includes transfers from one institution to another.

State government expenditure on mental health services

The following figures show particulars of expenditure by States for the year 1967–68. Maintenance expenditure represents expenditure on wages and salaries, upkeep and repair of buildings and grounds, and other maintenance. The figure for New South Wales relates to the 14 State psychiatric centres and the Master in Protective Jurisdiction of the Supreme Court. Capital expenditure is expenditure under the *State Grants (Mental Health Institutions) Act* 1964–1967 only. For details of Commonwealth financial assistance to the States for mental health services, *see* page 429.

MENTAL HEALTH: EXPENDITURE, STATES, 1967-68
($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*
Maintenance . .	25,351	22,029	6,785	5,067	3,177	2,167
Capital . . .	6,256	4,144	587	190	445	1,075

Notifiable diseases

Methods of prevention and control. Provision exists in the Health Acts of all States for the compulsory notification of certain infectious and other diseases and for the application of preventive measures. When any such disease occurs the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from, or to be carriers of, infectious disease must submit to clinical and laboratory examination. Persons suffering from certain diseases, for example, smallpox and leprosy, are detained in isolation.

Notifiable diseases and cases notified, 1969. The following table shows, by State and Territory, the number of cases notified in 1969 for those diseases notifiable in all States and Territories. In May 1965 the National Health and Medical Research Council at its Fifty-ninth Session proposed a basic list of diseases to be notifiable in each State and Territory, and this table is based upon that proposal. The table does not include all diseases which are notifiable in a State or Territory. Factors such as the following affect both the completeness of the figures and the comparability from State to State and from year to year: availability of medical and diagnostic services; varying degrees of attention to notification of diseases; and enforcement and follow-up of notifications by Health Departments.

NOTIFIABLE DISEASES(*a*): NUMBER OF CASES NOTIFIED
STATES AND TERRITORIES, 1969

Disease	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Anthrax . . .	1	..	..	..	..	..	..	..	1
Brucellosis . . .	17	113	3	..	2	1	..	..	136
Cholera . . .	..	1	..	..	..	..	3	..	4
Diphtheria . . .	5	23	..	1	..	1	1	..	31
Gonorrhoea . .	4,010	1,606	1,875	703	817	96	488	53	9,648
Infectious hepatitis(*b*) .	2,820	2,364	886	615	146	493	74	52	7,450
Leprosy . . .	..	..	1	1	39	..	17	3	61
Leptospirosis . .	10	5	50	..	..	3	1	..	69
Paratyphoid fever .	2	3	7	..	..	1	..	..	13
Poliomyelitis . .	..	1	..	..	..	..	..	..	1
Syphilis . . .	453	144	212	38	209	3	13	..	1,072
Tetanus . . .	5	5	8	..	1	..	..	..	19
Tuberculosis(*c*) . .	670	497	296	134	124	50	38	14	1,823
Typhoid . . .	9	10	5	3	3	..	4	..	34
Typhus (all forms) .	1	1	1	..	..	..	..	..	3

(*a*) No cases of plague, smallpox or yellow fever were notified. (*b*) Includes hepatitis serum (homologous). (*c*) Queensland figure includes erythema nodosum and pleural effusion.

New infectious hepatitis cases notified. The following table shows the number of cases of infectious hepatitis notified in each State and Territory during the years 1965 to 1969.

INFECTIOUS HEPATITIS: CASES NOTIFIED STATES AND TERRITORIES, 1965 TO 1969

State or Territory	*1965*	*1966*	*1967*	*1968*	*1969*
New South Wales	3,325	4,188	4,032	2,526	2,820
Victoria	1,987	2,137	2,991	2,362	2,364
Queensland(*a*)	556	843	1,973	1,819	886
South Australia	414	978	1,299	558	615
Western Australia	83	28	190	147	146
Tasmania	197	200	425	589	493
Northern Territory	128	78	158	66	74
Australian Capital Territory	51	125	248	56	52
Australia	**6,741**	**8,577**	**11,316**	**8,123**	**7,450**

(*a*) Includes hepatitis, serum (homologous).

New tuberculosis cases notified. The following table gives particulars of the number of new cases of tuberculosis notified in Australia for 1969.

TUBERCULOSIS: NEW CASES NOTIFIED(*a*), STATES AND TERRITORIES, 1969

State or Territory	*Age group (years)* 0–14	15–34	35–54	55 and over	Not stated	*Total*
New South Wales	33	115	253	265	4	670
Victoria	50	83	170	194	..	497
Queensland	2	46	131	117	..	296
South Australia	6	23	46	59	..	134
Western Australia	13	31	37	43	..	124
Tasmania	2	12	20	16	..	50
Northern Territory	4	15	13	6	..	38
Australian Capital Territory	1	2	7	4	..	14
Australia	**111**	**327**	**677**	**704**	**4**	**1,823**

(*a*) Figures supplied by the Director of Tuberculosis in each State.

New cases of poliomyelitis notified. The number of new cases of poliomyelitis notified, and confirmed by the Poliomyelitis Sub-committee of the National Health and Medical Research Council, is shown for each State and Territory for each year from 1965 to 1969 in the following table.

POLIOMYELITIS: NEW CASES NOTIFIED, STATES AND TERRITORIES, 1965 TO 1969

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965	3	..	..	..	..	1	..	..	4
1966	..	..	1	..	..	..	..	..	1
1967	..	1	..	..	..	..	..	..	1
1968	..	1	1	..	..	1	..	..	3
1969	..	1	..	..	..	..	..	..	1

Chronic illnesses, injuries, and impairments

As part of the quarterly population survey (*see* Chapter 23, Employment and Unemployment) a survey was conducted in May 1968, in all States except Victoria, in order to obtain estimates of the incidence of chronic illnesses, injuries and impairments in the population, the nature of these conditions and their cause (e.g. whether they were congenital or due to war, accident, etc.). In addition, the survey obtained information on the effect of these conditions on the activities of those who suffered from them.

Estimates derived from the survey were published in a mimeographed bulletin *Chronic Illnesses, Injuries and Impairments, May 1968* (Ref. No. 17.3). A summary of the principal results is given in the Appendix to this Year Book.

Disposal of dead by cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31 December 1969 there were twenty-six crematoria in Australia, situated as follows: New South Wales, 10; Victoria, 4; Queensland, 5; South Australia, 2; Western Australia, 2; Tasmania, 2; Australian Capital Territory, 1. There is no crematorium in the Northern Territory. The following table shows the number of cremations and total deaths in each State and Territory for each of the years 1965 to 1969.

CREMATIONS AND TOTAL DEATHS: STATES AND TERRITORIES(*a*), 1965 TO 1969

State or Territory	*1965*		*1966*		*1967*		*1968*		*1969*	
	Cremations	*Total deaths*	*Cremations*	*Total deaths*	*Cremations*	*Total deaths*	*Cremations*	*Total deaths*	*Cremations*	*Total deaths*
New South Wales	16,651	38,949	17,733	40,546	17,486	39,613	18,749	41,803	18,564	40,655
Victoria	9,857	28,031	10,362	28,673	10.173	28.373	10,939	29,967	10,617	28,976
Queensland	4,905	14,114	5,097	14,861	5,156	14,736	5,686	16,078	5,733	15,786
South Australia	1,638	8,788	1,957	9.323	2,076	9,071	2,476	9,916	2,464	9,337
Western Australia	2,010	6,274	2,308	6,772	2.448	6,779	2,548	7,470	2,590	7,350
Tasmania	912	3.043	947	3.159	1,019	3,228	1,049	3,284	1,066	3,309
Northern Territory	. .	161	. .	154	. .	527	. .	543	. .	485
Australian Capital Territory	. .	355	(*b*)81	441	180	376	235	488	309	588
Australia	**35,973**	**99.715**	**38,485**	**103.929**	**38,538**	**102,703**	**41,682**	**109,549**	**41,343**	**106,496**

(*a*) Cremations are not necessarily carried out in the State or Territory where the death was registered. (*b*) Commenced operation 8 July 1966.

CHAPTER 15

LAW, ORDER, AND PUBLIC SAFETY

This chapter provides summary information about criminal and civil court proceedings (including divorce and bankruptcy); selected crime reported or becoming known to the police; police strengths; prisons; expenditure on law and order; and patents, trademarks and copyright. The main sources for further information for individual States are the State Year Books and Statistical Registers, and the annual reports of the relevant justice authorities.

The statistics in this chapter are influenced by a number of factors which affect comparability from State to State and from year to year, such as differences in the jurisdiction of courts; changes in the law in particular States and differences in the laws between States; differences in the methods of compiling the figures (e.g. in respect of persons convicted for more than one offence); the prevailing attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences; and the strength and distribution of the police forces.

Details of the development and structure of the State, Territory, and Commonwealth legal systems are given in Year Book No. 55, pages 565 to 567. The only notable change has occurred in Western Australia. *The District Court of Western Australia Act*, 1969 came into operation on 1 April 1970, establishing the District Court of Western Australia. Provision has been made for the appointment of District Court Judges and the appointment of one of the District Court Judges to be the Chairman of Judges. Under the Act, the District Court has all the jurisdiction and powers that the Supreme Court has in respect of any indictable offence, except for those offences where the maximum term of imprisonment exceeds fourteen years, or for which the penalty is death. In civil actions, the Court has the same jurisdiction to hear and determine, and may exercise all the powers and authority, that the Supreme Court has, except that jurisdiction is limited in most cases to claims not exceeding $6,000. In all respects, except as expressly provided by or under the Act, the practice and procedure of the Court is the same as the practice and procedure of the Supreme Court in like matters. Any party may appeal to the Full Court of the Supreme Court.

Lower (magistrates') courts

Particulars of the powers of magistrates, and of special provisions for dealing with juvenile offenders in special courts in the various States and Territories are given in Year Book No. 55, pages 567 to 571. The statistics in the following tables are influenced by the factors listed at the beginning of this chapter and, in particular by differences in the jurisidiction of lower courts in the various States.

Criminal proceedings

The number of charges heard at magistrates' courts in each State and Territory in the years 1964 to 1968 are given in the following table. The statistics relate to individual offences for which persons were charged, except for Queensland where proceedings against a person for a number of offences at the one hearing are counted as one charge.

MAGISTRATES' COURTS(*a*): CHARGES HEARD, STATES AND TERRITORIES 1964 TO 1968(*b*)

State or Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	341,351	341,171	338,808	336,746	337,540
Victoria	303,096	323,644	307,465	318,172	326,445
Queensland(*c*)(*d*)	97,878	113,568	111,743	95,155	100,046
South Australia(*c*)	64,401	71,468	83,080	98,588	117,081
Western Australia	60,510	67,244	66,863	76,458	86,836
Tasmania	31,702	36,535	37,624	36,550	38,674
Northern Territory	(*e*)6,581	(*e*)7,519	(*e*)7,961	10,336	10,459
Australian Capital Territory	7,797	7,845	9,025	7,318	7,647
Australia	**913,316**	**968,994**	**962,569**	**979,323**	**1,024,728**

(*a*) Includes Children's Courts, except for Northern Territory. (*b*) Excludes minor traffic offences settled without court proceedings. (*c*) Year ended 30 June. (*d*) A person charged on several counts at the one hearing is included only once. (*e*) Excludes courts at Tennant Creek and Katherine.

Differences between States in the preceding table, and within States over a period of time, are influenced by the large number of traffic offences and the arrangements which have been introduced at various times for dealing with them. Provision exists in the States and the Australian Capital Territory for settlement of parking and minor traffic offences by payment of fines without court proceedings. The numbers involved are shown in the next table.

MINOR TRAFFIC OFFENCES SETTLED BY PAYMENT OF FINES WITHOUT COURT PROCEEDINGS, STATES AND A.C.T., 1964 TO 1968

State and Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	381,058	400,459	464,122	411,447	431,066
Victoria	181,479	229,478	313,529	343,432	410,857
Queensland(*a*)	101,276	115,446	209,417	264,617	253,429
South Australia(*a*)	198,943	121,535	240,359	240,014	239,619
Western Australia	49,488	51,167	64,842	62,827	83,146
Tasmania	38,555	40,917	50,914	45,081	55,677
Australian Capital Territory	(*b*)1,419	5,145	3,949	10,132	6,867
Total	**952,218**	**964,147**	**1,347,132**	**1,377,550**	**1,480,661**

(*a*) Year ended 30 June. (*b*) From 14 September 1964.

The following tables show the number of cases dealt with in magistrates' courts, in which convictions were made.

CASES AT MAGISTRATES' COURTS(*a*) IN WHICH CONVICTIONS WERE MADE, BY CLASS OF OFFENCE: STATES AND TERRITORIES, 1968(*b*)

Class of offence	*N.S.W.*	*Vic.*	*Qld (c)(d)*	*S.A. (c)*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Against the person	4,246	3,783	862	644	1,057	502	277	184	11,555
Against property	32,136	22,271	5,727	5,159	10,938	3,019	593	850	80,693
Forgery and offences against the currency	985	284	15	14	70	129	71	99	1,667
Against good order	79,835	31,757	31,577	10,327	15,890	1,473	5,560	502	176,921
Other	173,414	233,726	47,182	88,883	53,937	24,977	2,915	5,312	630,346
Total	**290,616**	**291,821**	**85,363**	**105,027**	**81,892**	**30,100**	**9,416**	**6,947**	**901,182**

(*a*) Includes Children's Courts except for Northern Territory. (*b*) Excludes minor traffic offences settled without court proceedings. (*c*) Year ended 30 June. (*d*) A person convicted on several counts at the one hearing is included only once.

CASES AT MAGISTRATES' COURTS(*a*) IN WHICH CONVICTIONS WERE MADE STATES AND TERRITORIES, 1964 TO 1968(*b*)

State or Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	301,922	304,053	299,780	297,697	290,616
Victoria	277,877	296,542	279,631	286,316	291,821
Queensland(*c*)(*d*)	88,442	101,955	98,214	82,271	85,363
South Australia(*c*)	55,408	62,238	71,694	87,110	105,027
Western Australia	57,498	64,014	63,489	72,798	81,892
Tasmania	26,686	31,256	32,414	31,525	30,100
Northern Territory	(*e*)6,166	(*e*)7,026	(*e*)7,402	9,437	9,416
Australian Capital Territory	5,815	6,688	7,793	6,021	6,947
Australia	**819,814**	**873,772**	**860,417**	**873,175**	**901,182**

(*a*) Includes Children's Courts except for Northern Territory. (*b*) Excludes minor traffic offences settled without court proceedings. (*c*) Year ended 30 June. (*d*) A person convicted on several counts at the one hearing is included only once. (*e*) Excludes courts at Tennant Creek and Katherine.

The number of cases in which convictions for drunkenness were recorded during each of the years 1964 to 1968 are given in the following table.

DRUNKENNESS CASES(*a*) IN WHICH CONVICTIONS WERE MADE STATES AND TERRITORIES, 1964 TO 1968

State or Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	61,537	63,143	56,159	55,134	57,710
Victoria	24,048	23,790	24,279	23,855	24,338
Queensland(*b*)	30,924	29,224	28,791	29,530	28,409
South Australia(*b*)	6,952	7,110	7,334	6,109	6,889
Western Australia	7,910	8,288	9,033	10,722	10,794
Tasmania	420	491	461	481	501
Northern Territory	(*c*)3,021	(*c*)3,938	(*c*)3,231	4,598	5,216
Australian Capital Territory	331	401	377	313	316
Australia	**135,143**	**136,385**	**129,665**	**130,742**	**134,173**

(*a*) Includes Children's Courts except for Northern Territory. (*b*) Year ended 30 June. (*c*) Excludes courts at Tennant Creek and Katherine.

Convictions for certain serious offences at lower (magistrates') courts

The figures given in the preceding tables refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order, which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at magistrates' courts for the years 1964 to 1968 for offences against the person, offences against property, forgery, and offences against the currency.

CONVICTIONS FOR CERTAIN SERIOUS OFFENCES(*a*) AT MAGISTRATES' COURTS(*b*): STATES AND TERRITORIES, 1964 TO 1968

State or Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	31,826	34,585	34,911	35,809	37,367
Victoria	23,131	23,785	25,804	27,355	26,338
Queensland(*c*)(*d*)	5,707	6,160	6,900	6,789	6,604
South Australia(*c*)	4,145	4,813	5,085	5,180	5,817
Western Australia	8,017	7,991	9,357	10,207	12,065
Tasmania	2,122	3,670	3,285	3,278	3,650
Northern Territory	(*e*)469	(*e*)627	(*e*)647	818	941
Australian Capital Territory	480	627	761	895	1,133
Australia	**75,897**	**82,258**	**86,750**	**90,331**	**93,910**

(*a*) Offences against the person offences against property, forgery. and offences against the currency. (*b*) Includes Children's Courts except for Northern Territory. (*c*) Year ended 30 June. (*d*) A person convicted on several counts at the one hearing is included only once. (*e*) Excludes courts at Tennant Creek and Katherine.

Committals to higher (judges') courts

In the case of other than minor offences a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a prima facie case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. The numbers of such committals are shown in the following tables.

COMMITTALS TO HIGHER COURTS(*a*), BY CLASS OF OFFENCE: STATES AND TERRITORIES, 1968

Class of offence	*N.S.W.*	*Vic.*	*Qld (b)(c)*	*S.A. (b)*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Against the person	1,830	1,268	374	280	139	83	22	67	4,063
Against property	5,924	3,468	1,023	406	810	545	118	150	12,444
Forgery and offences against the currency	246	731	15	19	43	77	37	8	1,176
Against good order	175	63	5	9	1	2	5	. .	260
Other	54	662	11	12	44	9	14	15	821
Total	**8,229**	**6,192**	**1,428**	**726**	**1,037**	**716**	**196**	**240**	**18,764**

(*a*) Includes committals from Children's Court except for Northern Territory. (*b*) Year ended 30 June. (*c*) A person committed on several counts at the one hearing is included only once.

COMMITTALS TO HIGHER COURTS(*a*): STATES AND TERRITORIES 1964 TO 1968

State or Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	7,575	7,908	8,758	7,954	8,229
Victoria	5,343	4,745	5,308	5,655	6,192
Queensland(*b*)(*c*)	1,270	1,477	1,614	1,611	1,428
South Australia(*b*)	602	753	737	713	726
Western Australia	474	515	523	609	1,037
Tasmania	610	414	486	549	716
Northern Territory	(*d*)65	(*d*)169	(*d*)127	176	196
Australian Capital Territory	177	224	137	170	240
Australia	**16,116**	**16,205**	**17,690**	**17,437**	**18,764**

(*a*) Includes committals from the Children's Court except for Northern Territory. (*b*) Year ended 30 June. (*c*) A person committed on several counts at the one hearing is included only once. (*d*) Excludes courts at Tennant Creek and Katherine.

Civil proceedings

Civil proceedings in the lower courts refer to those in the Small Debts Courts in New South Wales, Courts of Petty Sessions in Victoria, Magistrates' Courts in Queensland, Local Courts in South Australia and Western Australia, Courts of Requests in Tasmania, Local Courts in the Northern Territory, and the Court of Petty Sessions in the Australian Capital Territory. Statistics of civil proceedings in the lower courts are given on page 446.

Higher (judges') courts

Higher courts are presided over by a judge, sometimes with a jury. The general jurisdiction of the higher courts in the States and Territories, which for this purpose include District, County and Supreme Courts, includes appeals from the lower courts, cases of serious crime committed from lower courts, and civil cases involving common law, commercial causes, equity, etc. Under the Commonwealth *Matrimonial Causes Act* 1959–1966, the Supreme Courts of the various States and Territories have exclusive jurisdiction in matrimonial causes, and under the *Bankruptcy Act* 1966–1969, the Federal Court of Bankruptcy, the Supreme Courts of New South Wales, Queensland, Western Australia, Tasmania and the Northern Territory, and the Courts of Insolvency in Victoria and South Australia, can deal with bankruptcy cases. However, the Federal Court handles bankruptcy cases in New South Wales and Victoria.

Proceedings at higher courts include therefore criminal, civil, divorce, and bankruptcy proceedings. Separate details of each are given in the following paragraphs.

Criminal proceedings

The statistics in the following tables are influenced by the factors listed at the beginning of this chapter.

PERSONS CONVICTED(*a*) AT HIGHER COURTS, BY NATURE OF OFFENCE: STATES AND TERRITORIES, 1968

Offence	*N.S.W.*	*Vic.*	*Qld (b)*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Against the person—									
Murder	14	5	9	3	1	4	1	..	37
Attempted murder	3	3	5	..	1	..	1	..	13
Manslaughter(*c*)	20	9	20	10	5	4	2	1	71
Culpable driving	54	..	29	..	4	7	..	1	95
Rape	72	34	21	11	6	4	..	1	149
Other offences against females	331	270	107	161	8	35	..	8	920
Abduction	1	12	..	..	..	4	..	..	17
Unnatural offences	85	99	20	26	7	4	1	2	244
Abortion and attempt to procure	2	..	..	1	..	..	..	..	3
Bigamy	10	3	..	2	2	..	..	1	18
Malicious wounding and aggravated assault	160	61	59	..	35	7	10	6	338
Common assault	64	23	2	6	..	2	..	3	100
Other offences against the person	32	2	5	17	2	1	..	..	59
Total, against the person	*848*	*521*	*277*	*237*	*71*	*72*	*15*	*23*	*2,064*
Against property—									
Burglary, breaking and entering	1,233	381	567	307	309	102	42	30	2,971
Robbery and stealing from the person	93	97	41	11	18	24	2	3	289
Embezzlement and larceny by servants	102	48	14	12	..	5	1	2	184
Other larceny(*d*)	594	194	151	32	76	..	8	13	1,352
Receiving	159	56	55	3		5	..	6	
Fraud and false pretences	95	51	11	20	..	9	5	6	197
Arson	16	10	12	..	1	8	..	1	48
Malicious damage	13	15	5	..	..	1	..	1	35
Other offences against property	23	..	16	3	1	..	4	..	47
Total, against property	*2,328*	*852*	*872*	*388*	*405*	*154*	*62*	*62*	*5,123*
Forgery and offences against the currency	32	84	8	18	11	11	6	1	171
Against good order	45	47	2	..	1	1	5	..	101
Other	1	286	1	49	19	5	..	..	361
Grand total	**3,254**	**1,790**	**1,160**	**692**	**507**	**243**	**88**	**86**	**7,820**

(*a*) A person convicted on several counts at the one hearing is classified according to the most serious offence and is included only once. (*b*) Year ended 30 June. (*c*) Includes causing death by dangerous driving. (*d*) Includes unlawfully using vehicles.

PERSONS CONVICTED(*a*) AT HIGHER COURTS: STATES AND TERRITORIES, 1964 TO 1968

State or Territory	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	2,689	2,900	3,201	3,126	3,254
Victoria	1,793	1,618	1,725	1,786	1,790
Queensland(*b*)	1,134	1,201	1,330	1,279	1,160
South Australia	629	713	738	707	692
Western Australia	259	315	302	357	507
Tasmania	172	170	204	254	243
Northern Territory	41	76	58	65	88
Australian Capital Territory	66	85	67	69	86
Australia	**6,783**	**7,078**	**7,625**	**7,643**	**7,820**

(*a*) *See* note (*a*) above. (*b*) Year ended 30 June.

Capital punishment

There were no executions in Australia in 1969. For a brief account of the law relating to capital punishment in Australia, *see* Year Book No. 55, page 573.

Civil proceedings

The following table shows civil judgments (excluding those for divorce and bankruptcy) in the higher courts during 1968. The particulars given below include the number and amount of judgments entered by default or confession or agreement.

CIVIL CASES AT HIGHER COURTS: STATES AND TERRITORIES, 1968

		N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A. (c)	Tas.	N.T.	A.C.T.
Judgments . .	number	52,840	9,171	885	311	780	n.a.	n.a.	635
Amounts awarded	$'000	n.a.	8,112	5,595	2,051	3,845	n.a.	n.a.	1,414

(a) Excludes Common Law Jurisdiction. (b) Year ended 30 June. (c) Judgments signed and entered.

Because of differences in the jurisdictions of higher and lower courts in respect of civil proceedings in each State and Territory, the figures above should be read in conjunction with the following table, showing the numbers of plaints entered and amounts awarded to plaintiffs in the lower courts in 1968.

CIVIL CASES AT LOWER COURTS: STATES AND TERRITORIES, 1968

		N.S.W.	Vic.	Qld (a)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Plaints entered .	number	160,549	208,682	57,376	92,724	57,689	40,919	(b)2,998	6,443	627,380
Amounts awarded to plaintiffs	$'000	5,548	16,927	3,363	4,776	2,812	1,528	n.a.	n.a.	n.a.

(a) Year ended 30 June. (b) Excludes Tennant Creek.

Divorce and other matrimonial causes

A description of Commonwealth legislation governing divorce and other matrimonial causes in Australia is contained in Year Book No. 55, page 580. Under this legislation a court may grant decrees of dissolution of marriage (divorce), nullity of marriage, judicial separation, restitution of conjugal rights, and jactitation of marriage (i.e., that a person should refrain from making a false claim that a marriage has taken place between him and another person). Orders may be made for maintenance, the custody and welfare of children, and settlement of property, and damages for adultery. The following statistics refer only to petitions for, and decrees of, dissolution, nullity, and judicial separation. Detailed statistics are published in the annual and quarterly *Divorce* bulletins, and the annual *Demography* bulletin.

Petitions filed

Statistics of petitions exclude cross-petitions contained in answers by respondents. The following table shows the number of petitions for dissolution of marriage, nullity of marriage, and judicial separation filed in each State and Territory during 1969.

PETITIONS FILED FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION STATES AND TERRITORIES, 1969

Petition for—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution—										
By husband		2,056	1,185	664	480	496	202	44	78	5,205
By wife		3,749	1,864	970	874	563	225	16	116	8,377
Total		*5,805*	*3,049*	*1,634*	*1,354*	*1,059*	*427*	*60*	*194*	*13,582*
Nullity—										
By husband		9	3	2	3	2	..	..	1	20
By wife		17	6	3	4	3	1	1	..	35
Total		*26*	*9*	*5*	*7*	*5*	*1*	*1*	*1*	*55*
Dissolution or nullity—										
By husband		2	4	..	1	..	..	..	..	7
By wife		6	5	1	1	..	..	..	..	13
Total		*8*	*9*	*1*	*2*	..	..	..	..	*20*
Judicial separation—										
By husband		..	..	1	1	..	..	..	..	2
By wife		10	1	4	5	1	1	..	5	27
Total		*10*	*1*	*5*	*6*	*1*	*1*	..	*5*	*29*
All petitions—										
By husband .	. No.	2,067	1,192	667	485	498	202	44	79	5,234
	per cent	35	39	41	35	47	47	(a)	39	38
By wife .	. No.	3,782	1,876	978	884	567	227	17	121	8,452
	per cent	65	61	59	65	53	53	(a)	61	62
Grand total . .		**5,849**	**3,068**	**1,645**	**1,369**	**1,065**	**429**	**61**	**200**	**13,686**

(a) Percentages not shown because of small number of cases involved.

Decrees granted

Statistics of decrees granted refer to decrees *nisi* made absolute except for the following cases, where no decree *nisi* is granted.

(i) Decrees of judicial separation, which do not dissolve the marriage and may be discharged on resumption of cohabitation.

(ii) Decrees of nullity of void marriage, as distinct from nullity of voidable marriage. A void marriage is invalid because of failure to meet a legal requirement, and the original decree of nullity is final. A valid marriage is voidable on proof of one or more of the grounds set out in Section 21 of the *Matrimonial Causes Act* 1959–1966, e.g. that either party is incapable of consummating the marriage.

The following tables show the number of dissolutions of marriage, nullities of marriage, and judicial separations granted in each State and Territory during 1969 classified according to petitioner, and the grounds on which decrees were granted during the years 1965 to 1969.

DECREES FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION STATES AND TERRITORIES, 1969

Decree of—		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Dissolution—										
To husband		1,924	911	498	362	421	159	22	48	4,345
To wife		3,198	1,303	738	601	451	172	22	92	6,577
To both		1	6	..	..	..	..	..	1	8
Total		*5,123*	*2,220*	*1,236*	*963*	*872*	*331*	*44*	*141*	*10,930*
Nullity—										
To husband		2	6	1	1	1	..	..	1	12
To wife		14	9	4	5	..	..	..	..	32
Total		*16*	*15*	*5*	*6*	*1*	..	..	*1*	*44*
Judicial separation—										
To husband		..	..	..	..	..	..	..	1	1
To wife		..	..	2	1	..	..	..	1	4
Total		..	..	*2*	*1*	..	..	..	*2*	*5*
All decrees—										
To husband	No.	1,926	917	499	363	422	159	22	50	4,358
	per cent	37	41	40	37	48	48	(*a*)	35	40
To wife	No.	3,212	1,312	744	607	451	172	22	93	6,613
	per cent	63	59	60	63	52	52	(*a*)	65	60
To both	No.	1	6	..	..	..	..	..	1	8
Grand total		**5,139**	**2,235**	**1,243**	**970**	**873**	**331**	**44**	**144**	**10,979**

(*a*) Percentages not shown because of small number of cases involved.

DECREES FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION GROUNDS, AUSTRALIA, 1965 TO 1969

Ground	*1965*	*1966*	*1967*	*1968*	*1969*
DISSOLUTION					
Single grounds—					
Desertion	3,777	4,532	4,398	4,863	4,730
Adultery	2,035	2,288	2,270	2,611	2,916
Separation	1,706	1,968	1,868	1,959	1,758
Cruelty	380	488	550	670	750
Drunkenness	103	142	128	150	136
Failure to pay maintenance	10	6	3	10	8
Non-compliance with restitution decree	15	7	5	5	5
Refusal to consummate	24	23	30	39	32
Insanity	13	10	7	7	7
Frequent convictions	23	15	12	18	18
Imprisonment	7	6	7	4	3
Other single grounds	14	8	10	17	11
Dual grounds—					
Desertion and adultery	93	93	76	68	102
Desertion and separation	108	67	68	88	145
Desertion and cruelty	36	34	50	44	77
Desertion and drunkenness	26	20	24	16	8
Desertion and failure to pay maintenance	4	5	4	6	5
Desertion and other	5	6	5	5	4
Adultery and separation	2	7	9	1	3
Adultery and cruelty	6	8	12	12	16
Adultery and other	2	2	3	2	2
Separation and other	6	5	5	1	2
Cruelty and drunkenness	76	98	126	118	143
Cruelty and other	6	3	. .	2	7
Other dual grounds	1	2	2	2	3
Three grounds or more	13	16	16	13	39
Total	*8,491*	*9,859*	*9,688*	*10,731*	*10,930*
NULLITY					
Bigamy	13	21	15	18	12
Invalid marriage	2	2	5	2	1
Incapacity to consummate	20	22	27	23	28
Other grounds	. .	5	3	1	3
Total	*35*	*50*	*50*	*44*	*44*
JUDICIAL SEPARATION					
Desertion	. .	3	1	1	. .
Adultery	5	4	5	8	. .
Cruelty	1	2	2	2	5
Other grounds	2	3	. .	3	. .
Total	*8*	*12*	*8*	*14*	*5*
ALL DECREES					
Grand total	**8,534**	**9,921**	**9,746**	**10,789**	**10,979**

Divorced persons at each census, 1911 to 1966

The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1911 to 1966. A classification of divorced persons by ages for the censuses from 1891 to 1947 appeared in earlier issues of the Year Book (*see* No. 39, page 269). Before 1911 no record was made of divorced persons in South Australia, so comparisons cannot be made beyond that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA, 1911 TO 1966

	Number							*Number per 10,000 of males or females 15 years of age ond over*						
Sex	*1911*	*1921*	*1933*	*1947*	*1954*	*1961*	*1966*	*1911*	*1921*	*1933*	*1947*	*1954*	*1961*	*1966*
Males .	2,368	4,233	10,298	25,052	32,389	38,640	42,885	15	23	42	89	100	105	105
Females .	2,140	4,304	10,888	27,516	36,650	43,339	51,143	15	24	46	96	115	119	125

Bankruptcy

For a description of the provisions of the *Bankruptcy Act* 1966–1969, *see* Year Book No. 55, pages 586–7.

Bankruptcy proceedings

The following table shows the number of bankruptcies of the various types in each State, together with the disclosed assets and liabilities of the debtors, during 1968–69.

BANKRUPTCY PROCEEDINGS: STATES AND TERRITORIES, 1968-69

State or Territory			*Sequestration orders and orders for administration of deceased debtors' estates*	*Compositions*	*Deeds of assignment*	*Deeds of arrangement*	*Total*
N.S.W.(*a*) .	Number	.	499	14	36	12	561
	Liabilities	$	4,517,933	498,544	1,678,967	516,806	7,212,250
	Assets	$	1,693,689	218,417	880,180	158,428	2,950,714
Vic. . .	Number	.	520	22	39	21	602
	Liabilities	$	3,644,300	167,995	923,700	694,430	5,430,425
	Assets	$	1,702,738	61,712	537,086	424,347	2,725,883
Qld . .	Number	.	266	2	10	7	285
	Liabilities	$	2,964,625	. .	255,067	199,844	3,419,536
	Assets	$	1,893,982	. .	425,520	154,679	2,474,181
S. Aust. .	Number	.	690	4	7	6	707
	Liabilities	$	3,033,961	93,319	540,873	180,964	3,849,117
	Assets	$	1,500,717	54,707	568,278	154,060	2,277,762
W. Aust. .	Number	.	224	10	8	42	284
	Liabilities	$	1,080,984	133,613	357,393	609,253	2,181,243
	Assets	$	494,956	112,126	226,776	556,971	1,390,829
Tas. . .	Number	.	100	. .	3	5	108
	Liabilities	$	601,767	. .	113,607	439,827	1,155,201
	Assets	$	247,276	. .	60,973	225,969	534,218
N.T. . .	Number	.	3	. .	. .	. .	3
	Liabilities	$	21,328	. .	. .	. .	21,328
	Assets	$	54,822	. .	. .	. .	54,822
Australia	**Number**	.	**2,302**	**52**	**103**	**93**	**2,550**
	Liabilities	**$**	**15,864,898**	**893,471**	**3,869,607**	**2,641,124**	**23,269,100**
	Assets	**$**	**7,588,180**	**446,962**	**2,698,813**	**1,674,454**	**12,408,409**

(*a*) Includes the Australian Capital Territory.

The next table shows Australian figures in respect of each of the various types of bankruptcy, for the years 1964–65 to 1968–69.

BANKRUPTCY PROCEEDINGS: AUSTRALIA, 1964-65 TO 1968-69

Year		*Sequestration orders and orders for administration of deceased debtors' estates*	*Compositions*	*Deeds of assignment*	*Deeds of arrangement*	*Total*
1964–65	Number	2,453	128	13	110	2,704
	Liabilities $'000	15,740	1,993	312	1,804	19,850
	Assets $'000	6,127	1,129	129	1,365	8,749
1965–66	Number	2,384	133	23	113	2,653
	Liabilities $'000	15,106	4,082	634	3,176	22,998
	Assets $'000	6,488	3,585	725	2,623	13,421
1966–67	Number	2,284	127	18	108	2,537
	Liabilities $'000	19,108	2,176	535	2,310	24,129
	Assets $'000	7,685	1,293	308	1,542	10,829
1967–68	Number	2,350	78	35	88	2,551
	Liabilities $'000	15,222	1,828	1,229	3,330	21,609
	Assets $'000	6,292	1,189	918	2,010	10,409
1968–69	Number	2,302	52	103	93	2,550
	Liabilities $'000	15,865	893	3,870	2,641	23,269
	Assets $'000	7,588	447	2,699	1,674	12,408

The High Court of Australia

The High Court of Australia consists of a Chief Justice and six other Justices. Its principal seat is in Melbourne, but sittings are held in every State capital as occasion requires. The High Court has both original and appellate jurisdiction. Its original jurisdiction is usually exercised by a single Justice, appellate jurisdiction by at least three Justices. The following table sets out transactions in its original and appellate jurisdiction for 1968 and 1969.

TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA, 1968 AND 1969

Original jurisdiction(a)	*1968*	*1969*	*Appellate jurisdiction*	*1968*	*1969*
Number of writs issued	98	103	Number of appeals—		
Number of causes entered for trial	43	25	Set down for hearing	89	61
Judgment for plaintiffs	7	8	Allowed	49	32
Judgments for defendants	3	1	Dismissed	70	62
Otherwise disposed of	21	20	Otherwise disposed of	20	14
Amounts of judgments	$441,760	$126,612			

(a) Some matters dealt with by the High Court neither originate as writs nor are entered as causes.

During 1968 and 1969, respectively, the High Court dealt also with the following: appeals from assessments under the Taxation Assessment Acts, 19, 55; special cases stated for the opinion of the Full Court, 6, 9; applications for prohibition, etc., 5, 9. The fees collected amounted to $12,764 in 1968 and $13,094 in 1969.

Selected crime reported to police

The following tables show some details of certain categories of offences reported or becoming known to police. This series, which commenced in 1964, is derived from police records and is based, as far as possible, on definitions and procedural arrangements uniformly determined for all States. The following explanations are necessary in order to interpret the figures in this series.

Offences reported or becoming known. All incidents reported or becoming known to the police which are found to constitute offences within the scope of the crimes covered are included. Offences are shown as 'reported or becoming known' in the period during which it has been established that the incident constitutes a crime, not necessarily in the period when the incident occurred. However, the incident is included when the police are satisfied that a crime has been committed, even though it may be established in subsequent proceedings that no crime or a crime of a different nature was committed. As far as possible, the offences are recorded in respect of the State in which the incident occurred, regardless of which police force undertakes investigations or prosecutions, or where an arrest is made, In the case of homicide, assault, robbery, and rape, one offence is counted in respect of each victim, regardless of the number of offenders involved. In the case of breaking and entering, and fraud, etc., one offence is counted for each act or series of directly related acts occurring at the same time and place, and under the same circumstances. Each motor vehicle stolen is counted as constituting a separate offence.

Offences cleared. An offence of the type included in this series is counted as 'cleared' when an information (charge, arrest or summons to appear) has been laid against at least one person involved. However, an offence may also be counted as 'cleared' without an information being laid. This may occur when the offender has received an official caution or has died, has committed suicide, has been committed to a mental institution, or is in another jurisdiction from which extradition is not desired or available, or is serving a sentence; or if there are other obstacles to prosecution, such as diplomatic immunity or that the complainant refuses to prosecute. A clearance is always shown against the classification under which the offence was 'reported', regardless of the nature of the charge laid or changes in the description of an offence due to later information. The entries are made in respect of the year when the offence was 'cleared', whether or not the offence was 'reported' in that or an earlier year.

Persons involved in crimes cleared. This is the sum of the number of persons dealt with in each of the offences shown as 'cleared'. If more than one person is involved in the one offence, each person is counted. If the same person is involved in more than one offence cleared, he is counted separately for each offence. Persons involved are shown against the categories of offences to which an incident was originally allocated, regardless of the actual offences they are charged with. This basis of counting 'persons involved in offences cleared' was adopted to reveal trends in crime participation by persons in various age-groups. The figures in this series are not directly comparable with statistics of persons charged or convicted in court, or of cases brought before the courts; nor do these figures reveal the number of offenders in the community.

Offences included in the statistics

Homicide. Separate details are provided for murder, attempted murder (i.e. acts done with intent to murder) and manslaughter (unlawful killing other than murder), excluding manslaughter arising from motor traffic accidents.

Serious assault. These are assaults normally dealt with on indictment. Includes woundings, offences causing bodily harm, assaults with a weapon, etc., and attempts of this nature. Excludes sexual assault and robbery. *Uniform interpretation of this definition between States is especially difficult to effect.*

Robbery. Stealing anything, if at or immediately before or after the time of stealing, the offender uses or threatens to use violence to any person or property in order to obtain the thing stolen, or to prevent or overcome resistance to its being stolen. Includes attempts of this nature.

Rape. Includes attempted rape and assault with intent to rape. Excludes unlawful carnal knowledge (i.e. where consent is given, but the girl is below the legal age of consent) and indecent assault.

Breaking and entering. Breaking and entering a building (or entering a building and breaking out) *and* committing or intending to commit a crime. Includes burglaries. Separate details are shown according to the type of building involved, namely, *dwellings* (including unoccupied dwellings, tents, caravans, etc., used as dwellings, and the residential parts of hotels, schools, etc.); *shops* (including kiosks, service stations, restaurants, bars, non-residential clubs, etc.); and *offices, factories and warehouses* (including parts of buildings, but excluding dwellings and shops used for such purposes). Includes attempts. From 1967 the figures exclude breakings involving property valued at $100 or less.

Motor vehicle thefts, illegal use, etc. Includes all offences of illegal, unlawful or unauthorised use, use without consent, unlawfully assuming control, etc., no matter under which legislation these offences are prescribed. Excludes cases of 'interference', but includes attempts at illegal use. The number of stolen motor vehicles which are recovered is also shown.

Fraud, forgery, false pretences. Includes embezzlement, 'omit to account', misappropriation, fraudulent appropriation, conversion, larceny as bailee, falsification of accounts, company fraud, forgery, uttering, false pretences, passing of valueless cheques and offences by trustees. Includes attempts, but excludes imposition. As a general rule, offences are included only if there is an element of deception or trickery. Separate details are shown for *valueless cheque* offences (i.e. passing of valueless cheques, whether there is no account, insufficient funds or a false signature of the purported drawer of the cheque. However, this sub-group excludes cases where a genuine cheque is altered or the endorsement of the payee is forged. These cases are regarded as forgery and or uttering and included in 'other').

Offences reported or becoming known to police

The following table shows, for each State and Territory, the number of offences in each of the seven categories covered by this series which were reported or became known to police during the years 1965 to 1969. The table excludes offences reported to and investigated by the Commonwealth Police, which are shown on page 454.

SELECTED CRIME REPORTED OR BECOMING KNOWN TO POLICE NUMBER OF OFFENCES, STATES AND TERRITORIES, 1965 TO 1969

Category of crime	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Homicide—									
1965	111	81	34	14	13	7	6	5	271
1966	113	106	62	13	14	3	8	2	321
1967	139	57	47	25	7	7	17	1	300
1968	140	52	51	18	14	10	12	3	300
1969	120	66	38	21	12	15	7	1	280
Serious assault(*a*)—									
1965	484	1,243	49	53	13	19	13	21	1,895
1966	522	1,529	82	53	14	3	11	13	2,227
1967	547	1,338	119	71	20	11	39	13	2,158
1968	611	1,600	128	52	60	19	15	23	2,508
1969	626	1,460	134	92	77	47	30	17	2,483
Robbery—									
1965	283	302	72	32	17	18	1	5	730
1966	346	457	92	50	20	17	4	6	992
1967	386	395	79	51	21	18	5	5	960
1968	544	480	88	79	48	23	6	12	1,280
1969	777	503	106	127	41	23	13	9	1,599
Rape—									
1965	67	93	46	23	13	8	2	5	257
1966	72	107	38	16	7	2	8	1	251
1967	72	138	32	43	5	17	2	2	311
1968	95	168	34	43	5	7	7	4	363
1969	126	144	35	32	6	7	7	7	364
Breaking and entering (dwellings, shops, offices, etc.)—									
1965	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	(*b*)46,626
1966									(*b*)56,841
1967(*c*)	7,806	7,656	1,417	1,165	552	340	40	96	19,072
1968(*c*)	11,026	8,069	1,841	1,181	883	422	54	86	23,562
1969(*c*)	11,923	8,215	2,035	1,299	1,368	586	66	105	25,597
Motor vehicle theft, etc.—									
1965	12,214	6,967	1,792	1,472	1,141	424	83	192	24,285
1966	12,678	8,969	1,703	1,304	1,572	410	89	212	26,937
1967	12,558	8,348	1,544	1,701	1,707	603	119	211	26,791
1968	13,008	9,352	1,740	1,967	2,084	759	192	196	29,298
1969	16,082	9,343	2,295	1,741	1,895	658	228	250	32,492
Fraud, forgery, etc.—									
1965	6,311	4,132	3,331	1,617	1,075	371	104	258	17,199
1966	5,558	3,779	2,778	1,740	1,052	182	144	276	15,509
1967	5,438	3,367	2,872	2,185	1,256	292	143	270	15,823
1968	6,283	4,402	4,154	1,596	1,476	607	271	166	18,955
1969	5,897	4,554	4,056	2,927	1,924	660	187	210	20,415

(*a*) *See* definition on pages 451–2. (*b*) All reported breakings, etc. (*c*) Excludes offences involving property valued at $100 or less.

Crimes cleared and persons involved

The tables which follow show, for the various categories of offences, the numbers of offences reported, the numbers cleared, and the numbers of persons involved according to age and sex. Sub-divisions of the categories homicide, breaking and entering, and fraud, etc., are provided. *See pages 450–2 for definitions used and the bases on which these statistics are prepared.*

HOMICIDE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED AND PERSONS INVOLVED, AUSTRALIA, 1967 TO 1969

	Murder			*Attempted murder*			*Manslaughter*			*All homicide*		
	1967	*1968*	*969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*
Numbers reported or becoming known .	137	143	157	127	114	90	36	43	33	300	300	280
Numbers cleared .	127	140	152	116	105	82	36	42	33	279	287	267
Persons involved in crimes cleared—												
Aged(*a*)—												
16 years and under	4	7	4	3	8	6	2	..	2	9	15	12
17 and 18 years .	7	10	8	4	6	6	2	2	7	13	18	21
19 and 20 years .	7	12	8	7	8	6	2	6	5	16	26	19
21 years and over	121	136	147	104	98	65	31	38	22	256	272	234
Total persons involved . .	*139*	*165*	*167*	*118*	*120*	*83*	*37*	*46*	*36*	(*b*)*294*	(*b*)*331*	(*b*)*286*

(*a*) Age last birthday at time of clearance. (*b*) Includes 46 females in 1967, 44 in 1968, and 54 in 1969.

SERIOUS ASSAULT, ROBBERY, RAPE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA, 1967 TO 1969

	Serious assault			*Robbery*			*Rape*		
	1967	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*
Numbers reported or becoming known	2,158	2,508	2,483	960	1,280	1,599	311	363	364
Numbers cleared	1,748	1,987	1,892	425	459	648	228	281	286
Persons involved in crimes cleared—									
Aged(*a*)—									
16 years and under	111	156	176	108	105	182	22	48	30
17 and 18 years	238	267	333	161	160	227	111	99	74
19 and 20 years	271	271	326	121	164	210	90	99	83
21 years and over	1,365	1,501	1,590	306	411	476	205	187	207
Total persons involved . .	(*b*)*1,985*	(*b*)*2,195*	(*b*)*2,425*	(*c*)*696*	(*c*)*840*	(*c*)*1,095*	*428*	*433*	*394*

(*a*) Age last birthday at time of clearance. (*b*) Includes 85 females in 1967, 106 in 1968, and 110 in 1969. (*c*) Includes 26 females in 1967, 38 in 1968, and 58 in 1969.

BREAKING AND ENTERING(*a*): CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA, 1967 TO 1969

	Dwellings			*Shops*			*Offices and warehouses*			*Total*		
	1967	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*
Numbers reported or becoming known .	8,205	11,434	12,258	6,030	6,585	7,215	4,837	5,543	6,124	19,072	23,562	25,597
Numbers cleared .	1,738	2,221	1,983	1,367	1,354	1,862	983	1,057	1,142	4,088	4,632	4,987
Persons involved in crimes cleared—												
Aged(*b*)—												
16 years and under	602	893	845	506	452	553	276	410	422	1,384	1,755	1,820
17 and 18 years .	416	394	492	387	400	594	189	239	306	992	1,033	1,392
19 and 20 years .	417	326	384	438	343	391	210	224	210	1,065	893	985
21 years and over	1,086	1,427	1,013	874	928	1,357	831	731	764	2,791	3,086	3,134
Total persons involved .	*2,521*	*3,040*	*2,734*	*2,205*	*2,123*	*2,895*	*1,506*	*1,604*	*1,702*	(*c*)*6,232*	(*c*)*6,767*	(*c*)*7,331*

(*a*) Excludes offences involving property valued at $100 or less. (*b*) Age last birthday at time of clearance. (*c*) Includes 195 females in 1967, 174 in 1968, and 210 in 1969.

MOTOR VEHICLE THEFT, ETC., FRAUD, ETC.: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA, 1967 TO 1969

	Motor vehicles theft, etc.			*Fraud, forgery, false pretences*								
				Valueless cheques			*Other*			*All frauds, etc.*		
	1967	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*	*1967*	*1968*	*1969*
Numbers reported or becoming known	26,791	29,298	32,492	7,127	7,787	8,694	8,696	11,168	11,721	15,823	18,955	20,415
Numbers cleared	6,039	6,218	6,772	5,063	5,784	6,643	7,681	9,935	10,601	12,744	15,719	17,244
Persons involved in crimes cleared—												
Males aged(*a*)—												
16 years and under	3,774	3,747	4,571	69	105	177	219	186	404	288	291	581
17 and 18 years	2,413	2,298	2,753	146	186	209	258	235	298	404	421	507
19 and 20 years	1,168	1,165	1,295	387	242	409	260	496	369	647	738	778
21 years and over	1,799	1,944	1,840	4,034	4,810	5,352	4,777	7,565	7,512	8,811	12,375	12,864
Total males	9,154	9,154	10,459	4,636	5,343	6,147	5,514	8,482	8,583	10,150	13,825	14,730
Females aged(*a*)—												
16 years and under	68	57	86	1	22	43	127	83	132	128	105	175
17 and 18 years	21	39	69	60	26	17	143	140	178	203	166	195
19 and 20 years	20	58	25	46	23	85	343	475	315	389	498	400
21 years and over	18	95	33	621	590	748	1,902	1,065	1,729	2,523	1,655	2,477
Total females	127	249	213	728	661	893	2,515	1,763	2,354	3,243	2,424	3,247
Total persons involved	*9,281*	*9,403*	*10,672*	*5,364*	*6,004*	*7,040*	*8,029*	*10,245*	*10,937*	*13,393*	*16,249*	*17,977*

(*a*) Age last birthday at time of clearance.

The number of stolen motor vehicles recovered was: 1967, 24,701; 1968, 27,191; 1969, 29,371.

Offences reported or becoming known to Commonwealth Police.

In addition to the offences shown in the preceding tables, the following statistics relate to those offences in the selected crime series which were reported to and investigated by the Commonwealth Police in 1969.

	Breaking and Entering	*Valueless cheques*	*Other Fraud*
Numbers reported or becoming known	4	646	5,484
Numbers cleared	2	229	1,088
Persons(*a*) involved in crimes cleared—			
Aged(*b*)—			
16 years and under	..	..	1
17 and 18 years	1	3 (1)	19 (4)
19 and 20 years	1	9 (2)	34 (15)
21 years and over	..	217 (35)	1,096 (313)
Total persons involved	*2*	*229 (38)*	*1,150 (332)*

(*a*) Numbers of females are shown in brackets. (*b*) Age last birthday at time of clearance.

Police

The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens, and inspectors under the fisheries and various other Acts. In metropolitan and large country areas they also regulate the street traffic. With the exception of the Commonwealth Police Force and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State Governments, but their members perform certain functions for the Commonwealth Governments, such as acting as aliens registration officers and policing various Commonwealth Acts and Regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force and the duties and ranks of the personnel involved in each State and Territory for 1969 are shown in the following table. Comparability between States is affected by differences in the classification of ranks and duties, and known differences between States are mentioned in footnotes.

Also included in the table are statistics of ancillary and civilian staff employed by police departments. Differences between States in the use of such staff are considerable. These differences arise, on the one hand, from differences in the extent to which police make use of such staff for police functions and, on the other hand, in the extent to which such staff are required to undertake additional functions (such as parking control) which are allocated to the police in varying degree between States. There is also some overlap between duties of ancillary and civilian staff as defined in footnotes (*i*), (*j*), (*k*) and (*m*) of the following table.

POLICE FORCES AND ASSISTANT STAFF: STATES AND TERRITORIES, 30 JUNE 1969

Duty and rank(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*
POLICE FORCES								
Criminal investigations, plain clothes police, scientific duties—								
Executive officers	3	2	..	1	2	1	..	..
Inspectors	15	14	13	3	4	5	1	1
Sergeants	359	56	156	37	52	16	10	7
Constables(*b*)	774	594	(*c*)312	222	124	72	29	18
Total, criminal investigations, etc.	1,151	666	481	263	182	94	40	26
Traffic duties—								
Executive officers	1	1	..	1	1	1	..	..
Inspectors	10	9	5	4	2	2	..	1
Sergeants	160	17	38	17	15	7	1	9
Constables(*b*)	892	450	(*c*)251	185	111	65	10	55
Total, traffic duties	1,063	477	294	207	129	75	11	65
Other special and general duties—								
Executive officers	26	22	..	6	10	4	..	2
Inspectors	117	91	(*d*)66	35	20	29	3	5
Sergeants	1,292	191	668	165	185	40	25	34
Constables(*b*)	3,327	3,129	(*c*)1,487	1,129	879	373	108	150
Total, other special, etc.	(*e*)4,762	3,433	2,221	1,335	(*f*)1,094	446	(*e*)136	(*e*)191
Not allocated—								
Executive officers whose duties extend beyond one branch	5	(*g*)3	(*h*)4	2	(*g*)4	2	(*g*)3	..
Inspectors	..	1	..	..	..	..	..	..
Police women	85	68	22	38	23	15	5	6
Trainees and cadets	193	95	157	410	58	38	..	..
Total, not allocated	283	167	183	450	85	55	8	6
Total police force—								
Executive officers	35	(*g*)28	(*h*)4	10	(*g*)17	8	(*g*)3	2
Inspectors	142	115	84	42	26	36	4	7
Sergeants	1,811	264	862	219	252	63	36	50
Constables(*b*)	4,993	4,173	(*c*)2,050	1,536	1,114	510	147	223
Police women	85	68	22	38	23	15	5	6
Trainees and cadets	193	95	157	410	58	38	..	..
Total police force	*7,259*	*4,743*	*3,179*	*2,255*	*1,490*	*670*	*195*	*288*
ANCILLARY AND CIVILIAN STAFF								
Employed by Police Department—								
Ancillary staff(*i*)								
Full-time	180	110	25	(*j*)174	..	53	31	..
Part-time	..	4	..	2	68	..	..	..
Civilian staff(*k*)								
Full-time	(*l*)689	741	329	77	(*m*)377	86	17	51
Part-time	..	77	26	9	59	..	..	..

For footnotes *see* next page.

POLICE FORCES AND ASSISTANT STAFF: STATES AND TERRITORIES, 30 JUNE 1969—*continued*

Duty and rank(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*
TOTAL STAFF								
Grand total—								
Full-time	8,128	5,594	3,533	2,506	1,867	809	243	339
Part-time	..	81	26	11	127	..	..	..

(*a*) Where more than one duty is involved, officers have been allocated to the category of duties in which the greater part of their time is spent. The allocation of executive officers and inspectors to categories of duties is necessarily somewhat arbitrary and varies from State to State. (*b*) Includes probationary constables. (*c*) Excludes probationary constables; included with trainees and cadets. (*d*) Includes sub-inspectors. (*e*) Does not include transport and maintenance; each section undertakes its own transport, and maintenance is done on contract and/or by the government transport pool. (*f*) Includes officers engaged on motor vehicle examination and testing and licensing drivers. (*g*) Includes 1 chief inspector. (*h*) Includes 1 commissioner's inspector and 1 chief inspector. (*i*) Parking police, native trackers, wardresses, etc.; special constables in New South Wales and Tasmania; police reservists in Victoria. (*j*) Includes clerical workers in the Women Police Auxiliaries. (*k*) Clerks, typists, artisans, cleaners. (*l*) Does not include cleaning which is done by the Cleaning Services Branch of the Government Stores Department. (*m*) Includes 52 cadets whose appointment is not subject to the Police Act.

Ancillary and civilian staff are excluded from the following table:

POLICE FORCES: STATES AND TERRITORIES, 1965 TO 1969

30 June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965	6,121	4,527	2,810	1,926	1,306	633	155	165	17,643
1966	6,486	4,656	2,975	1,994	1,349	619	157	186	18,422
1967	6,765	4,711	3,056	2,059	1,375	645	151	215	18,977
1968	7,111	4,825	3,083	2,214	1,421	632	172	228	19,686
1969	7,259	4,743	3,179	2,255	1,490	670	195	288	20,079

Commonwealth Police Force

The Commonwealth Police Force commenced operations on 21 April 1960, and is the principal agency for the enforcement of the laws passed by the Commonwealth Parliament. It is also responsible for the protection of Commonwealth property and interests at various buildings and establishments under the control of the Commonwealth. This force co-ordinates the work of other Commonwealth investigation and law enforcement agencies and acts on behalf of the United Nations Organization for the suppressing of traffic in women and the suppression of obscene literature.

Under the control of the force is the Australian Police College at Manly, New South Wales, which provides training for officers of various police forces and other agencies in Australia and New Zealand. The force has its Head Office in Canberra and District Offices in each capital city. The strength of the force at 30 June 1969 was 855 policemen and 3 policewomen. At that date there were, in addition, 96 civilian employees.

Prisons

Prisons and prison accommodation

PRISONS AND PRISON ACCOMMODATION: STATES AND NORTHERN TERRITORY, 30 JUNE 1968

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Prisons	20	13	8	15	20	1	2	79
Accommodation	3,381	2,582	1,158	1,276	1,276	417	113	10,203

There is no gaol in the Australian Capital Territory, but there is a lock-up attached to the police station at Canberra and another lock-up at Jervis Bay where offenders are held for short periods. Prisoners remanded or sentenced by a court in the Australian Capital Territory for more than five days are usually held in New South Wales prisons.

Convicted prisoners

CONVICTED PRISONERS: STATES AND TERRITORIES, 1964 TO 1968

30 June—	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia	
								Number	Per 10,000 of population
1964	3,090	1,981	801	726	825	232	74	7,729	6.9
1965	2,957	1,879	949	796	803	210	129	7,723	6.8
1966	3,140	1,872	995	818	863	259	107	8,054	6.9
1967	3,334	1,994	1,021	866	1,137	275	112	8,739	7.4
1968	3,292	2,103	958	926	1,150	281	120	8,830	7.3

(a) Includes Australian Capital Territory prisoners held in New South Wales prisons.

Cost of administration of law and order

Expenditure by the States

The tables following show identifiable net expenditure (i.e. gross expenditure less receipts from fees, recoups for services rendered, etc.) from Consolidated Revenue in connection with the administration of justice, police and prisons. The figures exclude Loan Fund expenditure and expenditure on debt charges, pay-roll tax and superannuation payments. Because of differing legislative and administrative arrangements in the various States, the activities covered by the figures shown are not exactly the same in each State. Small differences also result from differing accounting practices. However, the figures shown for individual States are comparable from year to year.

STATE NET EXPENDITURE ON LAW AND ORDER, 1968-69

State	Net expenditure			Per head of population		
	Justice	Police	Prisons(a)	Justice	Police	Prisons(a)
	$'000	$'000	$'000	$	$	$
New South Wales	7,408	30,551	6,479	1.67	6.90	1.46
Victoria	3,650	23,575	3,342	1.09	7.03	1.00
Queensland	2,658	15,470	2,095	1.52	8.83	1.20
South Australia	211	9,266	1,688	0.19	8.16	1.49
Western Australia	(b)−432	7,178	2,219	(b)−0.46	7.73	2.39
Tasmania	619	3,043	801	1.60	7.89	2.08
Total	**14,114**	**89,083**	**16,624**	**1.18**	**7.43**	**1.39**

(a) Excludes expenditure on reformatories as follows: N.S.W., $2,608,796; Qld, $169,388; S.A. $560,817; W.A., $767,416; Tas., $182,241. Expenditure on reformatories in Victoria is not separately identifiable. (b) Receipts for legal fees and registrations exceed expenditure.

STATE NET EXPENDITURE ON LAW AND ORDER
AUSTRALIA, 1964-65 TO 1968-69
($'000)

Year	Justice	Police	Prisons (a)
1964–65	11,639	64,338	10,633
1965–66	13,183	68,132	10,261
1966–67	13,396	77,197	11,824
1967–68	13,744	82,286	14,072
1968–69	14,114	89,083	16,624

(a) Excludes expenditure on reformatories, as follows: 1964–65, $1,970,083; 1965–66, $3,239,536; 1966–67, $3,672,797; 1967–68, $3,926,779; 1968–69, $4,288,658. Expenditure on reformatories in Victoria is not separately identifiable.

Commonwealth expenditure

Since the functions of the Commonwealth Government in the administration of law and order differ considerably from those of the States, precise comparison between Commonwealth and State expenditure in this field is not possible. The following tables show expenditure by the Commonwealth Government on the services it performs in relation to law and order.

COMMONWEALTH EXPENDITURE ON LAW AND ORDER, 1968-69
($'000)

	Gross expenditure	*Receipts*	*Net expenditure*
Justice—			
Administration	1,946	765	1,181
Bankruptcy	989	772	217
Crown Solicitor's Office	1,761	. .	1,761
High Court	325	. .	325
Judges' salaries and pensions	264	. .	264
Rent	890	. .	890
Court reporting	689	291	398
Territory courts	737	320	417
Repairs and maintenance	136	. .	136
Total, justice	*7,736*	*2,149*	*5,588*
Police—			
Commonwealth Police Force	4,292	. .	4,292
Australian Police College	103	. .	103
Australian Security and Intelligence Organization	2,807	. .	2,807
Northern Territory Police	1,204	. .	1,204
Australian Capital Territory Police	1,641	. .	1,641
Total, police	*10,047*	. .	*10,047*
Prisons—			
Northern Territory prisons	326	. .	326
Total, prisons	*326*	. .	*326*
Total, law and order	**18,110**	**2,149**	**15,961**

COMMONWEALTH EXPENDITURE ON LAW AND ORDER
1964-65 TO 1968-69
($'000)

Year	*Gross expenditure*	*Receipts*	*Net expenditure*
1964–65	9,342	1,236	8,106
1965–66	10,363	1,529	8,834
1966–67	14,123	1,624	12,499
1967–68	16,215	1,321	14,893
1968–69	18,110	2,149	15,961

Patents, trade marks and designs

Patents

Patents for inventions are granted under the *Patents Act* 1952–1966, which applies to the Commonwealth of Australia and the Territories of Norfolk Island, Papua and New Guinea. The act is administered by a Commissioner of Patents. The principal fees payable up to and including the grant of a patent amount to $39. Renewal fees are payable as follows: $10 before the expiration of the fourth year, and an amount progressively increasing by $2 before the expiration of each succeeding year up to the final fee of $32, payable before the expiration of the fifteenth year. An extension of time for six months for payment of a renewal fee may be obtained.

PATENTS: AUSTRALIA, 1965 TO 1969

	1965	1966	1967	1968	1969
Applications	15,150	16,007	15,733	16,712	17,446
Applications accompanied by provisional specifications	3,783	3,853	3,708	3,899	3,637
Letters patent sealed	7,277	6,140	6,356	5,537	7,127

Trade marks and designs

Under the *Trade Marks Act* 1955–1966 the Commissioner of Patents is also Registrar of Trade Marks. Provision is made for the registration of users of trade marks and for their assignment with or without the goodwill of the business concerned. A new classification of goods was adopted in 1958, and trade marks registered under repealed Acts are reclassified on renewal. Under the *Designs Act* 1906–1968 the Commissioner of Patents is also Registrar of Designs.

TRADE MARKS AND DESIGNS: AUSTRALIA, 1965 TO 1969

	1965	1966	1967	1968	1969
Trade marks—					
Received	6,583	6,714	7,537	8,301	9,246
Registered	3,256	3,272	5,333	4,612	4,809
Designs—					
Received	1,567	1,523	1,627	1,769	1 975
Registered	1,260	642	1,833	1,614	1,440

Copyright

Copyright is regulated by the Commonwealth *Copyright Act* 1968, which came into force on 1 May 1969. On that date Australia ratified its adherance to the Brussels revision of the Berne Copyright Convention and to the Universal Copyright Convention, whereby citizens of member countries are accorded protection by complying with the convention formality requiring proprietors to place on their works the symbol © together with their name and the year of first publication, in such a manner and location as to give reasonable notice of their claim of copyright in the works so identified. The new legislation contains no provision for the registration of copyright, and the Copyright Office ceased to exist on 1 May 1969. Copyright is now administered by the Attorney-General's Department.

CHAPTER 16

NATIONAL ACCOUNTS

NATIONAL INCOME AND EXPENDITURE

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

Estimates of national income and expenditure have been compiled by the Bureau since 1944–45 and have been published annually as papers entitled *National Income and Expenditure* accompanying the Commonwealth Budgets. Detailed annual estimates of national income and expenditure on a revised basis were published in *Australian National Accounts, National Income and Expenditure*, 1968–69. Preliminary estimates (less detailed) for 1968–69 were published earlier in a Budget Paper. Quarterly estimates are published in *Quarterly Estimates of National Income and Expenditure*.

The figures shown on pages 465–72 are as published in *Australian National Accounts, National Income and Expenditure*, 1968–69.

Description of the National Accounts

A brief description of the conceptual basis of national accounts is given in this section, but for a more detailed treatment of the concepts and structure of the Australian National Accounts reference should be made to *Australian National Accounts, National Income and Expenditure*, 1968–69, or to Year Book No. 50, pages 1253–68.

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian National Accounts are defined and expressed in equivalents as follows.

Gross national expenditure is the total expenditure within a given period on final goods and services (i.e. excluding goods and services used up in the process of production) bought for use in the Australian economy. It is equivalent to gross national product plus imports of goods and services less exports of goods and services.

National turnover of goods and services is the total flow within a given period of final goods and services (i.e. excluding any goods and services used up during the period in the process of production) entering the Australian economy from production and imports. This value is equivalent to gross national product plus imports of goods and services or, alternatively, to gross national expenditure plus exports of goods and services.

Gross national product is the total market value of goods and services produced in Australia within a given period after deduction of the cost of goods and services used up in the process of production but before deducting allowances for the consumption of capital equipment. Thus gross national product, as here defined is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services.

Gross national product at factor cost is that part of the cost of producing the gross national product which consists of gross payments to factors of production (labour, land, capital, and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross national product less indirect taxes plus subsidies. *Gross farm product at factor cost* is that part of gross national product at factor cost arising from production in rural industries (excluding forestry). *Gross non-farm product at factor cost* arises from production in all other industries.

Net national product is the part of the value added within a given period by factors of production (labour, land, capital, and enterprise) which accrues as income to their suppliers after allowing for the depreciation of capital equipment. It is equivalent to gross national product at factor cost less depreciation allowances.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital, and enterprise) in Australia or overseas. It is equivalent to net national product plus income receivable from overseas less income payable overseas.

Personal income is the total income, whether in cash or kind, received by persons normally resident in Australia. It includes both income received in return for productive activity (such as wages, salaries and supplements, incomes of unincorporated enterprises, etc.) and transfer incomes (such as cash, social service benefits, interest, etc.). Personal income also includes any property income received by non-taxable organisations such as private schools, churches, charitable organisations, etc. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income and retained investment income of life insurance, etc., funds.

Framework of accounts and sectors

In the accounts shown in Tables 1 to 7 four internal sectors are distinguished—trading enterprises, financial enterprises, persons and public authorities. In addition, there is an overseas sector which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents. All the sectors (except the overseas sector) engage in productive activity, but in the tables a national production account for the whole economy is shown instead of separate accounts for each sector. Similarly, the tables show only a national capital account for the economy, but a current (or income appropriation) account is shown for each sector. The system of accounts as thus envisaged is a completely articulated system in that a credit in any account must be matched with a corresponding debit in some other account—or in the same account if a complete consolidation of the transactions appropriate to that account has not been carried through.

The framework of sectors and accounts underlying the form of social accounts shown in this Year Book is set out in the following diagram. As stated in the previous paragraph, each sector could be envisaged as having separate production, appropriation and capital accounts, but in the tables compiled for Australia the production and capital accounts have been combined. In the diagram the solid rectangles depict the actual form of the tables, and the remaining rectangles show the full amount of detail which would be needed to provide a complete articulation of the accounts. The appropriate number of each table on pages 465–9 is shown on the left of the diagram.

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS

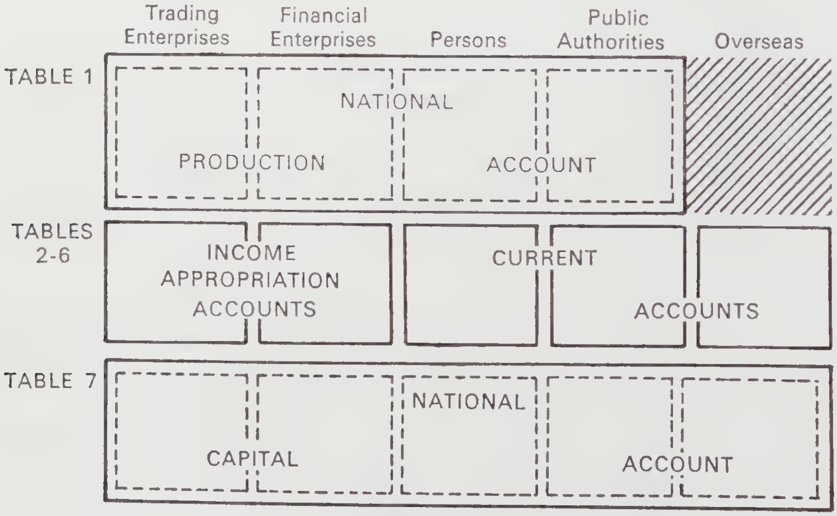


PLATE 31

Description of the accounts

The *national production account* is a consolidation of the production accounts of each sector. The production account is shown as receiving revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes, and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees. The balance is the gross operating surplus which is carried to the trading enterprises income appropriation account.

The *trading enterprises income appropriation account* is shown as receiving the gross operating surpluses from the national production account and property incomes (dividends, non-dwelling rent and interest) from other sectors. This total of receipts is appropriated to depreciation allowances and to various transfer payments (interest, etc., paid, income tax payable, dividends payable and undistributed income). All net income of unincorporated enterprises is treated as being transferred to persons and the same is true of personal income from dwelling rent. Any income of trading companies not distributed but retained for use in the business is shown as undistributed income and transferred to the national capital account either directly or by way of the overseas current account (where accruing to non-residents).

The *financial enterprises income appropriation account* is, in the main, similar to the preceding account. However, there is no operating surplus, as property income (which is treated as transfer income, not as income of factors of production) is the sole receipt.

The *personal current account* records all receipts on current account whether of factor incomes (wages and salaries) or transfer incomes (interest, etc., dividends, net business incomes, cash benefits from public authorities, and remittances from overseas). On the payments side are shown current payments for goods and services and transfer payments (taxes, interest, etc., remittances to overseas). The balance is transferred to the national capital account under the heading of personal saving.

The *public authorities current account* reflects a distinction between current and capital expenditure, which is necessarily arbitrary in some measure and has been made on the basis of excluding from the current account expenditure on public works and increase in stocks. Expenditure on public works is taken to include new buildings, construction, plant and machinery, and any replacement of assets charged to loan funds or capital works votes. Current account excludes capital expenditure of public enterprises (including replacement of assets charged to depreciation reserves but not those, if any, charged directly to working expenses) and all expenditure on roads, because a satisfactory distinction between new works and maintenance cannot be made. All defence expenditure is included in the current account.

The income of public enterprises shown in this account is derived by deducting from their operating surplus any depreciation shown by these enterprises in their published accounts, except in the case of enterprises whose accounts are included in the Commonwealth or State budgets and are at present analysed on the basis of cash accounts in which depreciation is not allowed. These depreciation allowances are included in the capital account. As in the case of persons, all overseas gifts are included in the current account. These include gifts for international relief, technical assistance, etc., grants, contributions to international organisations and expenditure in connection with the administration of Papua and New Guinea.

The *overseas current account* records all transactions of a current nature between Australian and overseas residents. It should be emphasised that this account is shown here from the point of view of overseas residents, i.e. receipts from Australia are shown as credits, and payments to Australia as debits. Australians temporarily overseas are regarded as residents, and visitors to Australia as non-residents.

Capital transactions of the four domestic sectors and the net deficit on current account with overseas are shown in the *national capital account*. On the receipts side are shown the savings of the various sectors—saving by enterprises, personal saving, the retained investment income of insurance funds, and the public authority surplus on current account. Net apparent capital inflow from overseas and withdrawal from monetary reserves are reflected in the item ‘overseas balance on current account’. On the payments side are shown the purchases by all sectors of new buildings and capital equipment and the increase in the value of stocks. The private component of capital expenditure includes new dwellings, additions and major alterations to dwellings and expenditure of a capital nature by private non-profit institutions (churches, schools, clubs, etc.) but excludes motor vehicles for personal use and other durable consumer goods, which are included in personal consumption expenditure.

Estimates at constant prices

For certain types of economic analysis it is useful to examine estimates of the principal flows of goods and services in the economy revalued in such a way as to remove the direct effects of changes in their prices which have occurred over the period under review. Such estimates, conventionally described as ‘at constant prices’, are presented in Table 8 for gross national product, exports and imports of goods and services, and gross national expenditure and its principal components.

In concept, constant price estimates may be thought of as being derived by expressing the value of every component commodity as the product of a price and a quantity, and by substituting for each actual current price the corresponding price in the chosen base year. Aggregates at constant prices for each year are then obtained by summation. In practice, the quality and quantity of the available data are such that a number of methods are used in the preparation of estimates at constant prices. These estimates involve approximations and assumptions, and this should be borne in mind in the interpretation and use of the results.

Gross national product is equivalent to gross national expenditure, plus exports of goods and services, less imports of goods and services. This relationship has been used in deriving the estimates of gross national product at constant prices shown in Table 8. A supplement to the bulletin *Australian National Accounts, National Income and Expenditure*, 1953–54 to 1966–67 entitled *Estimates of Gross Product by Industry at Current and Constant Prices*, 1959–60 to 1965–66 contains estimates of gross national product measured by the 'production method'.

For a considerable part of personal consumption expenditure and exports and imports of goods and services, it is possible to identify specific units of quantity and price, and revalue the quantities at base year prices. Where it is not possible to express the values in successive years as the product of prices and homogeneous units of quantity, the treatment generally adopted is to divide values by appropriate price indexes.

With the remaining components of gross national expenditure, a greater degree of approximation and assumption is involved. For example, when information about the commodity content of a flow is limited (e.g. various components of gross fixed capital expenditure), special purpose price indexes relating to selected commodities are applied to the expenditure on the full range of commodities they represent. In other cases, for instance, where the expenditure relates to 'unique' goods (e.g. goods not homogeneous from year to year), revaluation is achieved by use of an index reflecting the price change of the direct materials and direct labour components of the unique goods in question. This method of revaluation is also applied to current expenditure by financial enterprises and public authorities. The resulting estimates have, therefore, considerable limitations for many uses, for example in studies of productivity.

The method used to estimate changes in stocks at constant prices involves an adjustment for stock revaluation. This adjustment, referred to as the stock valuation adjustment, arises because of a revaluation of existing stocks (for example, such revaluations are sometimes made by business enterprises so as to show stocks at the lower of cost or market value for balance sheet purposes) or more commonly, because stocks used or disposed of during the year are replaced by new stocks of the same goods but at different prices.

Part 1 of *Australian National Accounts, National Income and Expenditure*, 1968–69 contains a fuller discussion of the conceptual problems involved in making these estimates and Appendix B of that publication contains a brief account of the sources and methods used in preparing the estimates.

Reliability and revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of statistical information, some of which is available quickly, some of it only with a delay of several years after the period to which it relates. Some of it is closely related to the desired national income concepts, but some of it is not completely satisfactory in various respects, including coverage, concepts and timing. Estimates, in particular for the most recent years, are therefore subject to revision.

This applies particularly to estimates based on income tax statistics—income of companies, non-farm unincorporated enterprises, depreciation, and part of gross private fixed investment—which are subject to substantial revisions for the last two years, as tabulations of income tax statistics do not become available until about twenty-two months after the end of each financial year.

It is not possible to put precise limits on the degree of revision likely in any particular series, nor to state degrees of reliability in a statistical sense. These depend in large part on the range and quality of the basic statistical data. For illustrations of common causes of revisions reference should be made to *Australian National Accounts, National Income and Expenditure*, 1968–69.

New series of constant price estimates rebased on 1966–67 prices are presented in this issue for the period 1964–65 to 1968–69. Previously separate series of estimates at average 1953–54 and at 1959–60 prices were published in earlier issues of the Year Book. For information about these series and about the differences between them and the new series at 1966–67 prices, reference should be made to the bulletins *Australian National Accounts, National Income and Expenditure*, 1967–68, and 1968–69.

National accounts and tables

Items in tables 1 to 7 are consecutively numbered from 1 to 28, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts and as a key to the notes on pages 473–6. In some cases the items correspond exactly, while in other cases an entry in one table is the sum of two or more entries in other tables; here the total is given a number, and the components have a number and a letter. In the remaining type of case all entries are given the same number and a distinguishing letter, because in this group one item is not the sum of one or more entries. The relationship between these items can still be traced through because the sum of all credit entries must equal the sum of all debit entries.

TABLE 1

NATIONAL PRODUCTION ACCOUNT

($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
1 Wages, salaries, and supplements	9,818	10,584	11,512	12,499	13,862
Gross operating surplus of trading enterprises—					
2*a* Companies	2,923	2,946	3,271	3,648	4,104
2*b* Unincorporated enterprises	3,533	3,401	3,868	3,531	4,177
2*c* Dwellings owned by persons	853	935	1,031	1,148	1,281
2*d* Public enterprises	632	672	702	786	895
Gross national product at factor cost	17,759	18,538	20,384	21,612	24,319
3 Indirect taxes less subsidies	2,043	2,233	2,380	2,584	2,852
Gross national product	19,802	20,771	22,764	24,196	27,171
4 Imports of goods and services	3,480	3,623	3,693	4,127	4,247
National turnover of goods and services	*23,282*	*24,394*	*26,457*	*28,323*	*31,418*
Net current expenditure on goods and services—					
5 Personal consumption	12,001	12,706	13,639	14,780	15,813
6 Financial enterprises	260	282	310	331	370
7 Public authorities	2,043	2,384	2,683	3,040	3,330
Gross fixed capital expenditure—					
8 Private	3,382	3,630	3,802	4,120	4,669
9 Public enterprises	1,019	1,137	1,196	1,351	1,425
10 Public authorities	835	912	959	1,019	1,113
Increase in value of stocks—					
11*a* Value of physical change in stocks	603	101	388	90	762
11*b* Stock valuation adjustment	74	127	102	134	98
12 Statistical discrepancy	17	−22	−91	−97	−52
Gross national expenditure	20,234	21,257	22,988	24,768	27,528
13 Exports of goods and services	3,048	3,137	3,469	3,555	3,890
National turnover of goods and services	*23,282*	*24,394*	*26,457*	*28,323*	*31,418*
Gross national product at factor cost	17,759	18,538	20,384	21,612	24,319
of which—					
Farm	2,085	1,853	2,233	1,744	2,228
Non-farm	15,674	16,685	18,151	19,868	22,091

TABLE 2
TRADING ENTERPRISES INCOME APPROPRIATION ACCOUNT
($ million)

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
2	Gross operating surplus	7,941	7,954	8,872	9,113	10,457
15*b*, 17*b*	Interest, etc., and dividends received	133	141	162	183	198
18*b*	Undistributed income accruing from overseas	19	18	13	20	21
	Total receipts	*8,093*	*8,113*	*9,047*	*9,316*	*10,676*
14*a*	Depreciation allowances	1,669	1,817	1,988	2,158	2,356
15*a*	Interest, etc., paid	846	961	1,075	1,206	1,361
	Company income—					
16*a*	Income tax payable	755	739	811	940	n.a.
17*a*	Dividends payable	516	521	635	713	n.a.
18*a*	Undistributed income	750	646	664	735	n.a.
	Total company income	2,021	1,906	2,110	2,388	2,693
19	Unincorporated enterprises income	2,704	2,527	2,910	2,487	3,047
20	Personal income from dwelling rent	455	491	541	604	674
21*a*	Public enterprises income	398	411	423	473	545
	Total outlay	*8,093*	*8,113*	*9,047*	*9,316*	*10,676*

TABLE 3
FINANCIAL ENTERPRISES INCOME APPROPRIATION ACCOUNT
($ million)

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
15*d*	Interest, etc., received	1,136	1,247	1,387	1,548	1,743
17*d*, 18*d*	Dividends received and undistributed income accruing from overseas	30	37	42	48	54
	Total receipts	*1,166*	*1,284*	*1,429*	*1,596*	*1,797*
14*b*	Depreciation allowances	18	23	27	30	34
6	Net current expenditure on goods and services	260	282	310	331	370
15*c*	Interest paid	376	426	464	496	576
	Company income—					
16*b*	Income tax payable	50	51	60	77	n.a.
17*c*	Dividends payable	41	42	47	44	n.a.
18*c*	Undistributed income	27	31	38	60	n.a.
	Total company income	118	124	145	181	201
21*b*	Public enterprises income	129	127	140	168	183
22	Retained investment income of life insurance funds, etc.	265	302	343	390	433
	Total outlay	*1,166*	*1,284*	*1,429*	*1,596*	*1,797*

TABLE 4
PERSONAL CURRENT ACCOUNT
($ million)

		1964-65	*1965-66*	*1966-67*	*1967-68*	*1968-69*
1	Wages, salaries and supplements	9 818	10,584	11,512	12,499	13,862
15*f*	Interest, etc., received	504	557	576	629	704
17*e*	Dividends	372	361	433	503	550
19*a*	Unincorporated enterprises income—Farm	1,274	1,043	1,335	799	1,212
19*b*	Other	1,430	1,484	1,575	1,688	1,835
20	Income from dwelling rent	455	491	541	604	674
23*b*	Remittances from overseas	115	122	134	154	164
25	Cash benefits from public authorities	1,098	1,179	1,271	1,325	1,442
	Total receipts	*15,066*	*15,821*	*17,377*	*18,201*	*20,443*
5	Personal consumption expenditure	12,001	12,706	13,639	14,780	15,813
15*e*	Interest paid	182	183	187	203	231
16*c*	Income tax payable	1,496	1,655	1,885	2,035	2,394
16*d*	Estate and gift duties	141	137	156	182	203
23*a*	Remittances overseas	66	74	79	84	90
24	Saving	1,180	1,066	1,431	917	1,712
	Total outlay	*15,066*	*15,821*	*17,377*	*18,201*	*20,443*

TABLE 5
PUBLIC AUTHORITIES CURRENT ACCOUNT
($ million)

		1964-65	*1965-66*	*1966-67*	*1967-68*	*1968-69*
3*a*	Indirect taxes	2,155	2,370	2,540	2,777	3,078
16*e*	Income tax, estate and gift duties received	2,432	2,682	2,881	3,213	3.617
15*h*	Interest, etc., received	104	112	115	98	112
21	Public enterprises income	527	538	563	641	728
	Total receipts	*5,218*	*5,702*	*6,099*	*6,729*	*7,535*
7	Net current expenditure on goods and services	2,043	2,384	2,683	3,040	3,330
3*b*	Subsidies	112	137	160	193	226
15*g*	Interest, etc., paid	505	540	570	627	670
23*c*	Overseas grants and contributions	107	127	151	154	159
25	Cash benefits to persons	1,098	1,179	1,271	1,325	1,442
26*a*	Grants towards private capital expenditure	31	56	55	53	46
26*b*	Devaluation compensation	. .	. .	. .	21	. .
27	Surplus on current account	1,322	1,279	1,209	1,316	1,662
	Total outlay	*5,218*	*5,702*	*6,099*	*6,729*	*7,535*

TABLE 6

OVERSEAS CURRENT ACCOUNT

($ million)

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
4a	Imports f.o.b.	2,739	2,822	2,837	3,159	3,203
4*b*	Transportation	488	520	544	636	679
4*c*	Travel	114	122	133	140	150
4*d*	Government transactions	53	62	81	95	111
4*e*	Other goods and services	86	97	98	97	104
4	Total imports of goods and services	3,480	3,623	3,693	4,127	4,247
15*j*, 17*g*	Interest, etc., paid and dividends payable and profits remitted overseas	286	307	349	371	425
18*f*	Undistributed income accruing to overseas residents	119	121	115	230	295
23*a*	Personal remittances overseas	66	74	79	84	90
23*c*	Public authority grants and contributions	107	127	151	154	159
	Total credits to non-residents	*4,058*	*4,252*	*4,387*	*4,966*	*5,216*
13*a*	Exports f.o.b.	2,574	2,626	2,926	2,941	3,217
13*b*	Transportation	279	295	312	359	390
13*c*	Travel	54	58	69	88	108
13*d*	Government transactions	59	77	83	76	80
13*e*	Other goods and services	82	81	79	91	95
13	Total exports of goods and services	3,048	3,137	3,469	3,555	3,890
15*i*, 17*f*	Interest, etc., received and dividends receivable from overseas	100	95	110	109	127
18*e*	Undistributed income accruing from overseas	19	18	13	20	21
23*b*	Personal remittances from overseas	115	122	134	154	164
28	Overseas balance on current account	776	880	661	1,128	1,014
	Total debits to non-residents	*4,058*	*4,252*	*4,387*	*4,966*	*5,216*

TABLE 7

NATIONAL CAPITAL ACCOUNT

($ million)

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
14	Depreciation allowances	1,687	1,840	2,015	2,188	2,390
16*f*, 17*h*	Increase in dividend and income tax provisions	11	−94	55	39	147
18*g*	Undistributed company income accruing to residents	658	556	587	565	611
22	Retained investment income of life insurance funds, etc.	265	302	343	390	433
24	Personal saving	1,180	1,066	1,431	917	1,712
26*a*	Public authority grants towards private capital expenditure	31	56	55	53	46
26*b*	Devaluation compensation	..	..	..	21	..
27	Public authorities surplus on current account	1,322	1,279	1,209	1,316	1,662
	Overseas balance on current account—					
28*a*	Withdrawal from overseas monetary reserves(*a*)	296	−59	120	−81	−154
28*b*	Net apparent capital inflow . . .	480	939	541	1,209	1,168
	Total capital funds accruing . .	*5,930*	*5,885*	*6,356*	*6,617*	*8,015*
	Gross fixed capital expenditure—					
8*a*	Private—Dwellings	891	888	967	1,083	1,272
8*b*	Other building and construction .	631	757	735	877	1,022
8*c*	All other	1,860	1,985	2,100	2,160	2,375
9	Public enterprises	1,019	1,137	1,196	1,351	1,425
10	Public authorities	835	912	959	1,019	1,113
	Total gross fixed capital expenditure .	5,236	5,679	5,957	6,490	7,207
11	Increase in value of stocks—					
	Farm	107	−82	217	−190	413
	Other	570	310	273	414	447
	Total use of funds	5,913	5,907	6,447	6,714	8,067
12	Statistical discrepancy	17	−22	−91	−97	−52
	Total capital funds accruing . .	*5,930*	*5,885*	*6,356*	*6,617*	*8,015*

(*a*) In item 28*a* minus sign (—) indicates an addition to reserves.

TABLE 8

VALUE OF MAIN AGGREGATES AT CURRENT AND AVERAGE 1966-67 PRICES

($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
AT CURRENT PRICES					
Net current expenditure on goods and services—					
Personal consumption	12,001	12,706	13,639	14,780	15,813
Financial enterprises	260	282	310	331	370
Public authorities	2,043	2,384	2,683	3,040	3,330
Gross fixed capital expenditure—					
Private—Dwellings	891	888	967	1,083	1,272
Other	2,491	2,742	2,835	3,037	3,397
Public	1,854	2,049	2,155	2,370	2,538
Increase in value of stocks—					
Value of physical change in stocks	603	101	388	90	762
Stock valuation adjustment	74	127	102	134	98
Statistical discrepancy	17	−22	−91	−97	−52
Total gross national expenditure	20,234	21,257	22,988	24,768	27,528
Gross national expenditure after stock valuation adjustment	20,160	21,130	22,886	24,634	27,430
Plus Exports of goods and services	3,048	3,137	3,469	3,555	3,890
Less Imports of goods and services	3,480	3,623	3,693	4,127	4,247
Gross national product after stock valuation adjustment	19,728	20,644	22,662	24,062	27,073
AT AVERAGE 1966–67 PRICES(*a*)					
Net current expenditure on goods and services—					
Personal consumption	12,776	13,089	13,639	14,335	14,872
Financial enterprises	285	299	310	313	332
Public authorities	2,220	2,515	2,683	2,903	3,039
Gross fixed capital expenditure—					
Private—Dwellings	945	913	967	1,052	1,195
Other	2,620	2,817	2,835	2,969	3,203
Public	1,996	2,138	2,155	2,297	2,363
Value of physical change in stocks	632	104	388	90	797
Statistical discrepancy	18	−23	−91	−94	−49
Gross national expenditure after stock valuation adjustment	21,492	21,852	22,886	23,865	25,752
Plus Exports of goods and services	3,082	3,134	3,469	3,680	3,941
Less Imports of goods and services	3,551	3,627	3,693	4,119	4,256
Gross national product after stock valuation adjustment	21,023	21,359	22,662	23,426	25,437

(*a*) *See* pages 463–4.

TABLE 9
RELATIONSHIP OF MAIN AGGREGATES
($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Net current expenditure on goods and services	14,304	15,372	16,632	18,151	19,513
Gross fixed capital expenditure	5,236	5,679	5,957	6,490	7,207
Increase in value of stocks	677	228	490	224	860
Statistical discrepancy	17	−22	−91	−97	−52
Gross national expenditure	**20,234**	**21,257**	**22,988**	**24,768**	**27,528**
Plus Exports of goods and services	3,048	3,137	3,469	3,555	3,890
National turnover of goods and services	**23,282**	**24,394**	**26,457**	**28,323**	**31,418**
Less Imports of goods and services	3,480	3,623	3,693	4,127	4,247
Gross national product	**19,802**	**20,771**	**22,764**	**24,196**	**27,171**
Less Indirect taxes *less* subsidies	2,043	2,233	2,380	2,584	2,852
Gross national product at factor cost	**17,759**	**18,538**	**20,384**	**21,612**	**24,319**
Less Depreciation allowances of trading enterprises	1,669	1,817	1,988	2,158	2,356
Net national product	**16,090**	**16,721**	**18,396**	**19,454**	**21,963**
Less Net income payable overseas	286	315	341	472	572
National income	**15,804**	**16,406**	**18,055**	**18,982**	**21,391**
Plus Net income payable overseas	286	315	341	472	572
Net national product	**16,090**	**16,721**	**18,396**	**19,454**	**21,963**
Less Net operating surplus of companies and public enterprises	2,624	2,565	2,813	3,155	3,583
Less Interest, etc. paid by unincorporated enterprises and dwellings owned by persons	489	554	620	709	797
Plus Interest received by persons	504	557	576	629	704
Dividends received by persons	372	361	433	503	550
Cash benefits to persons	1,098	1,179	1,271	1,325	1,442
Remittances from overseas	115	122	134	154	164
Personal income	**15,066**	**15,821**	**17,377**	**18,201**	**20,443**
Less Income tax payable and estate and gift duties	1,637	1,792	2,041	2,217	2,597
Personal disposable income	**13,429**	**14,029**	**15,336**	**15,984**	**17,846**

Table 10

MAIN AGGREGATES AT CURRENT PRICES, 1948-49 TO 1968-69

($ million)

Year	1 *Personal Consumption*	2 *Net current expenditure on goods and services by public authorities and financial enterprises*	3 *Private gross fixed capital expenditure*	4 *Public gross fixed capital expenditure*	5 *Increase in value of stocks*	6 *Statistical discrepancy*	7 (1 to 6) *Gross national expenditure*
1948–49 . .	2,994	393	498	290	148	−11	4,312
1949–50 . .	3,446	468	644	410	315	37	5,320
1950–51 . .	4,186	635	920	589	531	−34	6,827
1951–52 . .	4,988	869	1,130	809	775	86	8,657
1952–53 . .	5,295	999	1,140	787	−181	−211	7,829
1953–54 . .	5,811	955	1,315	822	42	−90	8,855
1954–55 . .	6,319	1,028	1,477	875	278	65	10,042
1955–56 . .	6,786	1,152	1,625	932	345	−27	10,813
1956–57 . .	7,253	1,205	1,698	971	49	−140	11,036
1957–58 . .	7,610	1,247	1,842	1,015	2	−10	11,706
1958–59 . .	8,021	1,362	1,906	1,116	333	−124	12,614
1959–60 . .	8,795	1,489	2,175	1,220	236	97	14,012
1960–61 . .	9,323	1,595	2,397	1,263	520	−6	15,092
1961–62 . .	9,616	1,728	2,311	1,403	−207	−131	14,720
1962–63 . .	10,309	1,834	2,558	1,446	322	−119	16,350
1963–64 . .	11,112	2,013	2,898	1,600	183	−90	17,716
1964–65 . .	12,001	2,303	3,382	1,854	677	17	20,234
1965–66 . .	12,706	2,666	3,630	2,049	228	−22	21,257
1966–67 . .	13,639	2,993	3,802	2,155	490	−91	22,988
1967–68 . .	14,780	3,371	4,120	2,370	224	−97	24,768
1968–69 . .	15,813	3,700	4,669	2,538	860	−52	27,52

Year	8 *Exports of goods and services*	9 *Imports of goods and services*	10 (7+8−9) *Gross national product*	11 *National income*	12 *Personal income*	13 *Wages, salaries and supplements*	14 *Net income payable overseas*
1948–49 . .	1,146	979	4,479	3,742	3,743	2,170	81
1949–50 . .	1,307	1,260	5,367	4,417	4,423	2,468	102
1950–51 . .	2,092	1,726	7,193	6,071	6,052	3,105	120
1951–52 . .	1,486	2,437	7,706	6,416	6,322	3,924	126
1952–53 . .	1,855	1,312	8,372	7,045	6,999	4,242	119
1953–54 . .	1,793	1,601	9,047	7,486	7,274	4,516	159
1954–55 . .	1,707	1,983	9,766	8,022	7,797	4,940	164
1955–56 . .	1,740	1,953	10,600	8,652	8,474	5,413	189
1956–57 . .	2,190	1,736	11,490	9,328	9,055	5,725	189
1957–58 . .	1,847	1,925	11,628	9,193	8,993	5,934	187
1958–59 . .	1,868	1,960	12,522	9,882	9,664	6,215	254
1959–60 . .	2,150	2,285	13,877	10,981	10,610	6,895	284
1960–61 . .	2,175	2,604	14,663	11,603	11,372	7,428	264
1961–62 . .	2,469	2,204	14,985	11,918	11,737	7,647	217
1962–63 . .	2,492	2,616	16,226	12,896	12,525	8,070	281
1963–64 . .	3,162	2,866	18,012	14,357	13,858	8,798	299
1964–65 . .	3,048	3,480	19,802	15,804	15,066	9,818	286
1965–66 . .	3,137	3,623	20,771	16,406	15,821	10,584	315
1966–67 . .	3,469	3,693	22,764	18,055	17,377	11,512	341
1967–68 . .	3,555	4,127	24,196	18,982	18,201	12,499	472
1968–69 . .	3,890	4,247	27,171	21,391	20,443	13,862	572

Description of items in the National Accounts

Tables 1 to 7

Item 1. *Wages, salaries and supplements.* Payments in the nature of wages and salaries as defined for pay-roll tax, including allowances for income in kind (board and quarters, etc.), together with supplements to wages, and pay and allowances of members of the forces. In addition to wages and salaries paid by employers subject to pay-roll tax, this item includes wages and salaries paid by employers not subject to pay-roll tax, based on estimates of employment and average earnings. Supplements consist of employers' contributions to pension and superannuation funds, direct payments of pensions and retiring allowances, and amounts paid as workers' compensation for injuries. Pay and allowances of members of the forces consist of active pay, field, subsistence and dependants' allowances, and the value to the members of the forces of food, clothing, normal medical attention, etc. supplied in kind. They include deferred pay, but exclude war gratuities which are included in item 25.

Item 2. *Gross operating surplus of trading enterprises.* The operating surplus, before deduction of depreciation provisions, dividends, interest, rent and royalties, and direct taxes payable, of all trading enterprises operating in Australia. Trading enterprises include all companies, public enterprises, partnerships and self-employed persons engaged in the production of goods and services for sale, but exclude financial enterprises. Public trading enterprises are government undertakings which attempt to recover all, or a substantial part, of their costs through charges made to the public for the sale of goods and services. All owners of dwellings are included whether they let the dwellings or occupy them themselves. Trading enterprises' gross operating surplus is shown separately for companies (item 2*a*), unincorporated enterprises (item 2*b*), dwellings owned by persons (item 2*c*), and public enterprises (item 2*d*).

Item 3. *Indirect taxes less subsidies.* Indirect taxes (item 3*a*) comprise taxes on purchases, sales or other transactions, or on the ownership of property, etc. paid by enterprises, public authorities and persons. They include licence fees in respect of rights conferred, such as liquor licenses, etc. Subsidies (item 3*b*) are transfer payments made by public authorities, credited to the production accounts of enterprises, with the object of providing incentives to, or of assisting, certain industries or activities. Such payments may take the form of bounties on goods produced, subsidies to producers to ensure a guaranteed price, payments to transport undertakings to permit a reduction of freights on certain classes of goods, assistance to producers, etc.

Item 4. *Imports of goods and services.* The value of goods imported from overseas and amounts payable overseas for services. In table 6 this item is sub-divided into the following components.

Item 4a. Imports f.o.b. Recorded trade figures adjusted for the purpose of balance of payments estimates. The principal adjustments are the addition of unrecorded imports, including ships and aircraft for use on overseas routes, the subtraction of films imported on a rental basis, imports of gold, passengers' personal effects, goods for repair and goods intended for re-export, and the deduction of a 'valuation adjustment' representing the excess of the recorded value of imports (based on value for duty) over the estimated selling price to the importer as shown on invoices accompanying customs entries.

Item 4b. Transportation. Freight payable to foreign carriers on goods imported into Australia and transported between Australian ports, fares payable in Australia including fares paid by the Commonwealth government for the carriage of migrants under various assisted passage schemes. It also includes the overseas expenditure of Australian ships and aircraft, and premiums (less claims) on marine insurance payable overseas on imports into Australia, less the net earnings on marine insurance business undertaken by Australian firms in respect of both exports and imports.

Item 4c. Travel. Expenditure less refunds, by Australians visiting overseas for pleasure and for business, which may take the form of travellers' cheques, letters of credit, etc.

Item 4d. Government transactions. Expenditure overseas for defence, including the pay and allowances of personnel serving overseas, expenditure overseas on diplomatic, consular and trade representation, grants, contributions to international organisations, government pensions paid abroad, administrative expenditure overseas on immigration, and other miscellaneous payments for services.

Item 4e. Other goods and services. Cinema and television film rentals payable overseas, expenses of Australian firms transacting business overseas, commissions, brokerage, etc., and the value of repairs on goods previously exported for repair and return, etc.

Item 5. *Net current expenditure on goods and services—personal consumption.* Net expenditure on goods and services for purposes of consumption by persons and private non-profit making bodies serving persons. This item excludes the purchase of dwellings and capital expenditure by non-profit making bodies (included in item 8), and maintenance of dwellings (treated as expenses of private enterprises), but includes personal expenditure on motor vehicles and other durable goods and the imputed rent of owner-occupied dwellings. Purchase of motor vehicles is the estimated expenditure by persons on new motor vehicles, second-hand motor vehicles purchased from business enterprises and public authorities, and net dealers' margins on purchases and sales of motor vehicles within the personal sector. Motor vehicles include cars, station wagons, motor cycles, and motor scooters bought on personal account. The value of income in kind (e.g. food produced and consumed on farms, board and lodging provided free to employees) is included in both personal income and personal consumption expenditure, but goods chargeable to business (expense) accounts are excluded.

Item 6. *Net current expenditure on goods and services.—financial enterprises.* The current expenditure of banks, instalment credit companies, short-term money market companies, and building societies after deduction of bank charges to customers. Charges by instalment credit companies are treated as interest receipts and therefore are not offset against expenditure. This item includes wages, salaries and supplements, indirect taxes, and other payments for goods and services. Public financial enterprises are government businesses (mainly banks, including the Reserve Bank) which operate in a manner analogous to other financial enterprises, in that their current expenditure is largely financed by the net receipt of interest. The interest received by government housing authorities is treated as a receipt by public financial enterprises, but their other receipts, including net profit on sale of houses, and all their expenditure, are included in those of public trading enterprises.

Item 7. *Net current expenditure on goods and services—public authorities.* Expenditure by public authorities (not public enterprises) which does not result in the creation of fixed tangible assets or in the acquisition of land, buildings or second-hand goods (other than imported). It comprises expenditure on wages, salaries, and supplements, and on goods and services other than fixed assets and stocks. Fees, etc. charged by public authorities for goods sold and services rendered are offset against purchases. Net expenditure overseas by public authorities and purchases from public enterprises are included. All expenditure on defence is classified as current.

Item 8. *Gross fixed capital expenditure—private.* Expenditure on fixed assets whether for additions or replacements. This item includes expenditure on dwellings (item 8*a*), other building and construction (item 8*b*), and vehicles, plant, machinery, etc. (item 8*c*). It includes also expenditure on second-hand assets (other than houses purchased from public authorities) as well as new assets, less sales of existing assets. Expenditure on ordinary repair and maintenance of fixed assets is excluded as being chargeable to current account. Major additions are, however, regarded as capital expenditure. New dwellings purchased by persons from public housing authorities are included in private capital expenditure.

Item 9. *Gross fixed capital expenditure—public enterprises.* Expenditure on fixed assets whether for additions or replacements, including wages and salaries paid by public enterprises in connection with capital works.

Item 10. *Gross fixed capital expenditure—public authorities.* Expenditure on fixed assets whether for additions or replacements other than for defence purposes. Because it has not been possible to make a satisfactory dissection, all expenditure on roads, including maintenance, is classified as fixed capital expenditure. Expenditure on housing, included in this item, includes the estimated expenditure on construction of dwellings for rental purposes and hostels for migrants and others, but excludes houses built for sale, which are included in private capital expenditure. Also excluded are advances under the *War Service Homes Act* and other advances for financing home purchase schemes, and expenditure on development and sub-division of land for residential purposes.

Item 11. *Increase in value of stocks.* The change in book value of non-farm stocks held by trading enterprises and public authorities and the change in the value of farm stocks. The increase in the value of stocks is shown as consisting of the value of the physical change in stocks (item 11*a*), and a stock valuation adjustment (item 11*b*).

Item 12. *Statistical discrepancy.* The difference between the sum of the direct estimates of gross national product and imports of goods and services on the one hand and the sum of the estimates of components of gross national expenditure and exports of goods and services on the other hand. Conceptually these two totals are the same. Inclusion of the discrepancy on the expenditure side of the national production account implies nothing as to the relative accuracy of the estimates of gross national product and expenditure. Similarly its inclusion in the capital account does not imply that estimates in this table are less accurate than those in other tables, or that capital expenditure estimates are less accurate than estimates on the receipts side of this account.

Item 13. *Exports of goods and services.* The value of goods exported overseas and receipts from overseas for other goods and services. In Table 6 this item is sub-divided into the following components.

Item 13*a*. *Exports f.o.b.* The recorded trade figures adjusted for balance of payments purposes. The adjustments are similar to those made to the recorded import figures except that no change is made to the basis of valuation. The adjustment for unrecorded exports includes exports of uranium ores.

Item 13*b*. *Transportation.* The expenditure of overseas carriers in Australian ports, the overseas earnings of ships owned or chartered by Australian operators, and earnings by Australian airlines overseas.

Item 13*c*. *Travel.* Expenditure less refunds by persons visiting Australia for pleasure or business, which may take the form of travellers' cheques, letters of credit, etc. including expenditure in Australia of foreign students studying under the Colombo Plan; and earnings of Australian domestic airlines for the carriage of overseas visitors over Australian domestic air routes.

Item 13*d*. *Government transactions.* Receipts for services rendered by the Australian Government to other governments and international organisations, and other payments in Australia by foreign governments on defence and other projects, on diplomatic, consular and trade representation, and for pensions paid in Australia.

Item 13*e*. *Other goods and services.* The value of Australian production of gold less net industrial usage, business expenses of overseas firms in Australia, and commissions, brokerage, etc.

Item 14. *Depreciation allowances.* The financial provisions made for depreciation which are deducted to obtain net income. The estimates represent, in the main, amounts allowed under income tax legislation, but include also the estimated depreciation on tenanted and owner-occupied dwellings and provisions made by public enterprises. This item is divided into depreciation allowances of trading enterprises (item 14*a*) and of financial enterprises (item 14*b*).

Item 15. *Interest, etc.* Comprises interest, non-dwelling rent and royalties. This item appears in most accounts as receipts and payments of interest, etc., but in the case of some entries the amounts are combined with dividends and overseas profits. The item is shown net of intra-sector receipts and payments. Payment of interest, etc. by public enterprises is included in item 15*g*. Payment of interest, etc., by trading enterprises (item 15*a*) includes interest charged on borrowings for the purchase of houses by persons, which is treated as an appropriation from the gross operating surplus of dwellings owned by persons. Non-dwelling rent includes only actual payments and is estimated net of the expenses of the owner of the premises on rates, maintenance, etc., which are treated as working expenses of the enterprises renting the building. Royalties include mining and forestry royalties paid to public authorities, and royalties and fees for use of trade marks, patents, etc. paid overseas.

Item 16. *Income tax, estate and gift duties.* Income tax payable by trading and financial companies (items 16*a* and 16*b*) and persons (item 16*c*) are amounts payable at rates of taxation applicable in each year. Income tax payable by companies in respect of the most recent year's income is estimated on the basis of rates of tax applicable in respect of the preceding year's income. The difference between the amounts of income tax payable and the cash receipts by public authorities (part of item 16*e*) is included in item 16*f*. Income tax payable by persons (item 16*c*) includes the total income tax payable by individuals on all forms of income whether wages, business income or property income. Estate and gift duties (item 16*d*) are the amounts actually paid by persons in that year.

Item 17. *Dividends.* All receipts and payments of dividends, including dividends payable overseas and the remitted profits of Australian branches of overseas enterprises. Dividends payable (items 17*a* and 17*c*) are the dividends declared by trading and financial companies in respect of the year (including an estimate of dividends to be declared in respect of the most recent year). Receipts of dividends (other than dividends receivable from overseas subsidiaries) are cash receipts, and the difference between the amounts payable and received is included in item 17*h*. The items are shown net of intra-sector receipts and payments.

Item 8. *Undistributed income.* The undistributed income of companies comprising trading enterprises (item 18*a*) and financial enterprises (item 18*c*) is the balance of total company income, including profits receivable from overseas (items 18*b* and 18*d*) after deduction of income tax and dividends payable, and is equal to the sum of undistributed income accruing to overseas residents (item 18*f*) and undistributed company income accruing to residents (item 18*g*). Profits receivable from overseas is the unremitted part of profits earned by overseas branches of Australian companies and undistributed profits of overseas subsidiaries of Australian companies.

Item 19. *Unincorporated enterprises income.* The gross operating surplus of unincorporated enterprises less depreciation allowances and interest, etc. paid. It comprises the income of farm unincorporated enterprises (item 19*a*) and the income of all other unincorporated enterprises (item 19*b*).

Item 20. *Personal income from dwelling rent.* The gross operating surplus of dwellings owned by persons less depreciation allowances and interest, etc. paid.

Item 21. *Public enterprises income.* Includes income of public trading enterprises (item 21*a*) and income of public financial enterprises (item 21b). For trading enterprises it is equal to gross operating surplus after the deduction of depreciation allowances; for financial enterprises it is the net income after depreciation allowances, interest paid, and net current expenditure on goods and services by government banks are deducted from total receipts of interest and non-dwelling rent. Depreciation allowances deducted in arriving at the income of public trading enterprises are those shown in their published accounts, except in the case of enterprises whose accounts are included in the Commonwealth or State budgets and are analysed on the basis of their cash accounts (in which depreciation is not charged).

Item 22. *Retained investment income of life insurance funds, etc.* Total dividends, interest, etc., received by life insurance and superannuation funds, less rent and interest paid, depreciation allowances, income tax and dividends payable.

Item 23. *Overseas grants, contributions and remittances.* All transfers to or from overseas on public authority or private account which are not payments for goods and services or payments of dividends, interest, etc.

Item 23*a*. *Personal remittances overseas.* Gifts of money by resident persons and private institutions, payments for sustenance, and transfers of emigrants' funds and legacies from Australia to overseas, together with the value of goods exported as gifts.

Item 23*b*. *Personal remittances from overseas.* Gifts of money received from non-resident persons and private institutions, receipts for sustenance, and transfers of immigrants' funds and legacies from overseas to Australia.

Item 23*c*. *Public authority overseas grants and contributions.* Grants to, and payments made on behalf of the Territories of Papua and New Guinea, and expenditure overseas in respect of technical assistance and relief under the Colombo Plan and United Nations projects. Includes contributions to United Nations and other organisations due by virtue of membership of these organisations.

Item 24. *Personal saving.* The excess of personal income over the sum of personal consumption expenditure, interest paid, income tax payable, estate and gift duties paid, and remittances overseas. Personal saving is estimated as the balancing item in the personal current account. It includes saving through life insurance and superannuation funds (defined as premiums, etc. paid less claims, etc. received and administrative expenses of life insurance offices) and the increase in assets of marketing authorities. Personal saving may also take the form of increases in holdings of cash and net purchases of securities, the net increase in bank deposits less advances, the reduction in the outstanding advances of instalment credit companies to persons and unincorporated enterprises, and the increase in the equity of persons in dwellings and in capital equipment, buildings and stocks of unincorporated enterprises.

Item 25. *Cash benefits.* Current transfers to persons from public authorities in return for which no services are rendered or goods supplied. Principal components are scholarships; hospital, medical, pharmaceutical, maternity, sickness, and unemployment benefits; child endowment; widows', age, invalid, and repatriation pensions; and attendance money for waterside workers.

Item 26*a*. *Grants towards private capital expenditure.* Grants to meet part of the costs of private capital expenditure, e.g. Commonwealth Home Savings grants, grants towards construction of science laboratories in private schools and houses for aged persons, payments under the *Currency Act* in relation to the conversion of accounting and other machines following introduction of decimal currency, etc.

Item 26*b*. *Devaluation compensation.* Compensation to primary industry marketing authorities for losses on overseas debts outstanding at the time of sterling devaluation.

Item 27. *Public authorities surplus on current account.* The excess of current revenue, including income of public enterprises, over current outlay. Current outlay includes current expenditure on goods and services, as defined in item 7, and transfer payments (interest, cash benefits, subsidies, grants towards private capital expenditure, and overseas grants). The surplus is transferred to the capital account where it is shown as part of total funds available for financing capital outlay.

Item 28. *Overseas balance on current account.* The excess of payments to the rest of the world on current account over receipts from the rest of the world on current account. In the national capital account it is shown divided into drawings on Australia's overseas monetary reserves (item 28*a*) and net apparent capital inflow (item 28*b*).

CHAPTER 17

PRIVATE FINANCE

Further information on the subjects dealt with in this chapter is contained in the annual bulletins *Banking and Currency* and *Insurance and Other Private Finance*. Current information is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the following mimeographed statements: monthly—*Monthly Bulletin of Banking Statistics; Banking Statistics* (preliminary statement); *Savings Bank Statistics* (preliminary statement); *Monthly Bulletin of Life Insurance Statistics; Finance Companies; Instalment Credit for Retail Sales* (preliminary statement); *Permanent Building Societies;* quarterly—*Instalment Credit for Retail Sales; New Capital Raisings by Companies in Australia* (bulletin and preliminary statement); *Capital and Maintenance Expenditure by Private Business in Australia; Unit Trusts, Land Trusts and Mutual Funds*. Other relevant annual mimeographed bulletins are *Life Insurance; Australian Fire, Marine and General Insurance Statistics; Government Pension and Superannuation Schemes; Survey of Selected Private Pension Funds; Finance Companies;* and *Registered Building Societies*.

CURRENCY

Until 13 February 1966 Australian currency was based on the British unit, which is the pound (£) divided into 20 shillings (s) each of 12 pence (d). A decimal currency system was introduced in Australia on 14 February 1966 based on a major unit—the dollar—equal to ten shillings in the old currency. The minor unit—the cent—is one-hundredth part of the major unit and is equal to 1.2 pence in the old currency. Decimal notes and coins became legal tender from 14 February 1966. The par value of the Australian dollar, under the terms of the International Monetary Fund, was established at 0.99531 grams of fine gold.

The *Reserve Bank Act* 1965 authorised the Reserve Bank of Australia to issue Australian notes in denominations of $1, $2, $5, $10, $20, or $50, or in any other denomination that the Treasurer, by instrument of writing published in the Gazette, determines. All Australia's coin requirements are met by the Royal Australian Mint, Canberra, with the Melbourne and Perth branches of the Royal Mint providing some bronze coins on contract to the Commonwealth Treasury.

For additional information on note issue and coinage refer to List of Special Articles, etc., at end of this Year Book.

RESERVE BANK OF AUSTRALIA: NOTE ISSUE DEPARTMENT LIABILITIES AND ASSETS, 30 JUNE 1968 AND 1969
($ million)

Liabilities	*1968*	*1969*	*Assets*	*1968*	*1969*
Notes on issue(a)	998.5	1,091.5	Gold and balances held abroad (including money at short call)	315.5	164.5
Special reserve—Premium on gold sold	..	..	Other overseas securities	151.4	198.5
Other liabilities(a)	20.3	45.9	Government securities (including Commonwealth Treasury bills)	501.0	457.3
			Balances with Central Bank	50.8	303.6
			Other assets	0.2	13.5
Total	**1,018.8**	**1,137.4**	**Total**	**1,018.8**	**1,137.4**

(a) Notes of a denomination not exceeding one pound ($2) which have been on issue for more than twenty years and notes of a denomination exceeding one pound ($2) which have been on issue for more than forty years are not included in the item 'Notes on issue' but are included in the item 'Other liabilities'.

In accordance with provisions of the *Reserve Bank Act* 1959–1966 the net profits of the Note Issue Department of the Reserve Bank are paid to the Commonwealth Revenue Fund. Net profits in 1967–68 and 1968–69 amounted to $23,001,935 and $23,786,243 respectively.

AUSTRALIAN NOTES IN CIRCULATION, JUNE 1965 TO 1969
($'000)

	Last Wednesday in June—				
	1965	*1966*	*1967*	*1968*	*1969*
$1 and 10s	28,396	32,204	33,214	34,881	37,528
$2 and £1	143,308	138,164	127,997	117,929	117,281
$5	..	..	42,829	57,444	64,088
$10 and £5	392,980	369,247	389,201	401,079	441,276
$20 and £10	297,479	309,713	344,943	394,667	447,245
£20	2	2	1	1	1
£50	45	43	43	42	42
£100	41	41	40	40	40
£1,000	164	..	..	..	..
Total	**862,414**	**849,414**	**938,269**	**1,006,083**	**1,107,500**
Held by banks	*138,783*	*154,117*	*162,006*	*159,726*	*164,867*
Held by public	*723,631*	*695,298*	*776,263*	*846,357*	*942,632*

AUSTRALIAN DECIMAL COIN: COSTS OF COIN ISSUED, 1965-66 TO 1968-69
($'000)

	Cost of metal	*Cost of minting*	*Freight and sundry charges*	*Total cost*	*Face value of coin issued*	*Surplus*
Silver—						
1965–66	9,077	406	106	9,589	11,607	2,018
1966–67	3,808	170	34	4,012	4,869	857
1967–68	1,350	80	2	1,432	1,671	239
1968–69	..	..	..	..	..	..
Cupro-nickel—						
1965–66	510	631	168	1,309	10,429	9,120
1966–67	772	835	145	1,752	14,406	12,654
1967–68	1,341	1,732	43	3,116	20,243	17,127
1968–69	1,044	1,320	72	2,436	13,008	10,572
Bronze—						
1965–66	1,493	2,686	260	4,439	7,368	2,929
1966–67	543	930	110	1,583	2,714	1,131
1967–68	407	589	36	1,032	1,823	791
1968–69	511	745	24	1,280	2,296	1,016
Total—						
1965–66	11,080	3,723	534	15,337	29,404	14,067
1966–67	5,123	1,935	289	7,347	21,989	14,642
1967–68	3,098	2,401	81	5,580	23,737	18,157
1968–69	1,555	2,065	96	3,716	15,304	11,588

AUSTRALIAN DECIMAL COIN: VALUE OF COIN ISSUED 30 JUNE 1966 TO 1969
($'000)

Year ended 30 June—	*50 cents*	*20 cents*	*10 cents*	*5 cents*	*2 cents*	*1 cent*	*Total*
1966	11,607	5,960	2,979	1,490	4,234	3,134	29,404
1967	4,869	10,420	1,073	2,913	2,043	671	21,989
1968	1,671	11,206	6,099	2,938	1,118	705	23,737
1969	..	6,307	3,854	2,847	1,390	906	15,304

VOLUME OF MONEY: AUSTRALIA, JUNE 1965 TO 1969

(*Source:* Reserve Bank of Australia)

($ million)

June—	*Notes and coin in hands of public*	*Deposits of public with all trading banks(a)*		*Deposits with all savings banks(b)*	*Total volume of money*
		Current	*Fixed*		
1965	814	2,977	1,688	4,858	10,337
1966	783	3,033	1,898	5,223	10,938
1967	882	3,192	2,026	5,724	11,824
1968	964	3,450	2,191	6,200	12,805
1969	1,065	3,685	2,542	6,682	13,974

(*a*) Excludes Government and inter-bank deposits, but includes deposits of the public with the Reserve Bank. (*b*) Interpolated 'weekly average' based on end of month figures.

Gold receipts, issues and price

Since early in the 1939–45 War all gold has been acquired by the Reserve Bank, and the export and use of gold has been subject to regulation by the Commonwealth Government. All trading banks in Australia, the Deputy Master of the branch of the Royal Mint in Perth, and three private refining companies are authorised under the Banking (Gold) Regulations to deal in gold on behalf of the Reserve Bank. The Melbourne Mint ceased to deal in gold in 1964. The Royal Australian Mint at Canberra is not authorised to receive and issue gold.

The average price of gold in Australia is fixed by the Reserve Bank and at present reflects the parity value of Australian currency established in conformity with the *International Monetary Agreements Act* 1947. The average price paid for gold delivered to the Reserve Bank of Australia or to persons authorised by the Bank to purchase gold is fixed by the Reserve Bank of Australia, and has been $31.25 per fine ounce since 1 May 1954.

In December 1951 arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats (11/12ths).

The average prices per fine ounce in Australian currency obtained for gold exported under this scheme for each month during 1968–69 were: July $36.640; August $34.161; September $31.251; October $35.460; November $36.195; December $37.516; January $34.315; February $38.413; March $35.773; April $34.155; May $36.629; and June $35.840.

OVERSEAS EXCHANGE RATES(*a*): PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC TRANSFER SELLING RATES FOR SYDNEY ON OVERSEAS COUNTRIES, 1968-69

Country	*Basis of quotation*	*Australian decimal currency equivalents*	
		Par of exchange (b)	*Selling rate 1968–69*
Belgium	Francs to $A1	56.00	55.39
Canada	Dollars to $A1	1.211	1.1916
Ceylon	Rupees to $A1	6.667	6.578
China (mainland)	New Yuan to $A1	(*c*)	2.72
China (Taiwan)	Dollars to $A1	(*d*)	44.62
Denmark	Kroner to $A1	8.40	8.30
Fiji	$A to $F1	(*c*)	1.0288
Finland	Markkas to $A1	4.704	4.64
France	Francs to $A1	5.530	5.488
Germany, Fed. Rep. of	Deutsche Marks to $A1	4.480	4.400
Greece	Drachmae to $A1	33.589	32.95
Hong Kong	Dollars to $A1	(*c*)	6.760
India	Rupees to $A1	8.400	8.329
Italy	Lire to $A1	700.00	689.00
Japan	Yen to $A1	403.20	396.01
Netherlands	Guilders to $A1	4.054	4.009
New Zealand	$A to $NZ1	1.00	1.0020
Norway	Kroner to $A1	8.000	7.88
Pakistan	Rupees to $A1	5.333	5.287
Portugal	Escudos to $A1	32.200	31.67
Singapore	Dollars to $A1	3.429	3.382
South Africa	Rands to $A1	0.800	0.795
Spain	Pesetas to $A1	78.400	77.06
Sweden	Kronor to $A1	5.794	5.708
Switzerland	Francs to $A1	(*c*)	4.766
United Arab Republic	£E to $A1	0.390	0.469
United Kingdom	$A to £stg1	2.143	2.1514
United States of America	Dollars to $A1	1.120	1.1113
U.S.S.R.	Roubles to $A1	(*c*)	1.004

(*a*) Based on rates quoted daily by the Commonwealth Trading Bank of Australia, or where these were not available, rates used by the Department of Customs and Excise in converting import values to $A for purposes of calculating customs duty. (*b*) As at 30 June 1969, established under International Monetary Fund Agreement. (*c*) Not a member of the International Monetary Fund. (*d*) No par value established.

BANKING

The Australian banking system has developed along the lines of the British system with widespread branch banking conducted by relatively few banks.

Development since federation

With federation in 1901 the new Commonwealth Parliament was given power, under section 51 of the Commonwealth Constitution, to legislate with respect to 'Banking, other than State Banking, also State Banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'. In 1911 the Commonwealth entered the field of banking, with the establishment of the Commonwealth Bank of Australia, which conducted both trading bank and savings bank operations. A separate Commonwealth Savings Bank was established in 1928.

Central bank

Central banking functions of the Commonwealth Bank developed gradually over the years prior to and during the second world war. In November 1935 a Royal Commission was appointed by the Commonwealth Government to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report in July 1937, and a summary of the recommendations appears in Year Book No. 31, page 1010.

In 1945 the Commonwealth Government legislated to give full legal effect to the central banking functions already being exercised by the Commonwealth Bank of Australia and to regulate the banking system as a whole. The Commonwealth Bank of Australia further developed mainly as a central bank when from 3 December 1953 the Commonwealth Trading Bank of Australia was established to take over most of the general trading bank functions of the Commonwealth Bank of Australia.

Legislation in 1959 completed the separation of the trading and central banking functions of the Commonwealth Bank of Australia with the establishment of the Commonwealth Development Bank of Australia under the *Commonwealth Banks Act* 1959 to take over the Industrial Finance Department and Mortgage Bank Department of the Commonwealth Bank of Australia.

A new bank, the Reserve Bank of Australia, was established under the *Reserve Bank Act* 1959 as the nation's central bank to administer the provisions of a new banking Act (*Banking Act* 1959). A statutory corporation, the Commonwealth Banking Corporation, was set up under the *Commonwealth Banks Act* 1959 to control the Commonwealth Trading Bank of Australia, the Commonwealth Development Bank of Australia, and the Commonwealth Savings Bank of Australia.

Trading banks

Commercial banking in Australia is predominantly carried on by eight major trading banks. One of these banks is owned by the Commonwealth Government and seven are privately owned companies established by Act or Charter or incorporated under State or British law. Since 1945 no new private trading banks may be established without the approval of the Commonwealth. In June 1969 the English, Scottish and Australian Bank Ltd and the Australia and New Zealand Bank Ltd became subsidiary companies of the Australia and New Zealand Banking Group Ltd (incorporated in the United Kingdom) but continued to operate as separate banks. It is intended that as from October 1970 this separation will be discontinued. The Rural Bank of New South Wales, the State Bank of South Australia and the Rural and Industries Bank of Western Australia are State-owned banks which operate only in their respective States. The Brisbane Permanent Building and Banking Co. Ltd (which became the Bank of Queensland on 11 May 1970) confines its operations to the Brisbane area, and three foreign banks, Bank of China, Bank of New Zealand and Banque Nationale de Paris operate on a restricted basis.

Term Loan Fund

Lending by trading banks is generally conducted on an overdraft basis. A departure from this practice followed discussions during 1961–62 involving the Commonwealth Government, the Reserve Bank and the major trading banks, which resulted in arrangements whereby the banks agreed to create a fund known as the Term Loan Fund, the resources of which would be employed to make loans for capital expenditure on production in the rural, industrial and (to a lesser extent) commercial fields and to finance exports. The loans would be made for fixed terms, varying usually between three and eight years. The term lending arrangements operated from April 1962.

Farm Development Loan Fund

Discussions in March 1966 between the Commonwealth Government, the Reserve Bank and the major trading banks resulted in the establishment of a fund known as the Farm Development Loan Fund, from which resources would be available to provide rural producers, particularly smaller producers, with greater access to medium and long-term finance. The Fund was established in April 1966.

Savings banks

Until 1956 savings bank operations were, apart from two small trustee banks in Tasmania, conducted by the Commonwealth Government and some State Governments. In January 1956 private savings banks were established as subsidiary companies by two of the private trading banks. By mid-1962 all the major private trading banks had established savings bank subsidiary companies.

Development banks

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act* 1959 and commenced operations on 14 January 1960. The Australian Resources Development Bank was established by the eight major trading banks with the support of the Reserve Bank of Australia and commenced operations in February 1968. For further information on these banks *see* page 502 and page 503 respectively.

Current legislation

Operations of banks and banking in Australia are currently governed by (i) Commonwealth legislation enacted in 1959 in respect of banking other than State banking, and (ii) State legislation relating to the incorporation of banks and management of State banks.

Commonwealth banking legislation

(*a*) The *Banking Act* 1959–1967 provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth. This Act, which replaced the *Banking Act* 1945–1953, was assented to on 23 April 1959 and came into operation on 14 January 1960 as the *Banking Act* 1959. It was amended by the *Banking Act* 1965 and the *Statute Law Revision* (*Decimal Currency*) *Act* 1966 in order to make certain changes required by the change to decimal currency and by the *Banking Act* 1967 relating to the Papua and New Guinea Development Bank and the Australian Resources Development Bank Limited. It applies to all banks, including savings banks, operating in Australia or the Territories of the Commonwealth except State banks trading in their own State. The objects of the Act are: (i) to provide a legal framework uniform throughout Australia for regulating the banking system; (ii) to safeguard depositors of the banks from loss; (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (iv) to control the volume of credit in circulation and bank interest rates; (v) to mobilise and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the *Banking Act* 1959 is given in Year Book No. 46, pages 759–60.

(*b*) The *Reserve Bank Act* 1959–1966 provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue.

(*c*) The *Commonwealth Banks Act* 1959–1968 provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia, and Commonwealth Development Bank of Australia.

The Commonwealth Banking Corporation came into being on 14 January 1960. It is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. Under the *Banking Act* 1959–1967 the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

The Board of the Corporation consists of the Managing Director of the Corporation, the Deputy Managing Director, the Secretary to the Treasury, and eight other members appointed by the Governor-General of whom one is Chairman and another Deputy Chairman. In addition, there is an Executive Committee of the Board for each of the three separate banks. These Executive Committees are appointed by the Treasurer, after consultation with the Board, and are charged with taking such action as is necessary to ensure that effect is given by the respective banks to the policies laid down for them and to any directions given by the Board in relation to their affairs. Under the Board the Corporation is managed by the Managing Director and the Deputy Managing Director. Each of the three constituent banks of the Corporation has its own statutory functions and responsibilities and its separate identity within the framework of the Corporation. Each bank is managed by a General Manager under the Managing Director of the Corporation.

State banking legislation

The State Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g. the Bank of New South Wales by Act of Council 1817, the Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the financial crisis of 1893. State banks, constituted under State Acts, transacting general banking business are The Rural Bank of New South Wales, the State Bank of South Australia, and the Rural and Industries Bank of Western Australia. State savings banks, constituted under State Acts, transacting savings bank business are The State Savings Bank of Victoria, The Savings Bank of South Australia and the Savings Bank Division of the Rural and Industries Bank of Western Australia.

Presentation of banking statistics

Because of the different purposes they serve in the Australian financial system, Australian banks have been divided for statistical purposes into the following groups and a separate series is presented for each.

(i) *The Reserve Bank of Australia.* Statistics of the Central Banking Business, the Note Issue Department, and the Rural Credits Department are shown separately.

(ii) *Trading banks.*

Major trading banks. These comprise the Commonwealth Trading Bank of Australia, Australia and New Zealand Bank Ltd, The Bank of Adelaide, Bank of New South Wales, The Commercial Bank of Australia Ltd, The Commercial Banking Company of Sydney Ltd, The English, Scottish and Australian Bank Ltd, The National Bank of Australasia Ltd.

All trading banks. These comprise the major trading banks and the following banks—the Bank of China, Bank of New Zealand, The Brisbane Permanent Building and Banking Co. Ltd, Banque Nationale de Paris, the General Bank Department of the Rural Bank of New South Wales, the State Bank of South Australia, and the Rural Department of the Rural and Industries Bank of Western Australia.

(iii) *Savings banks. These comprise:*

Commonwealth Savings Bank. The Commonwealth Savings Bank of Australia was established as a separate institution on 9 June 1928, having functioned previously as a department of the Commonwealth Bank.

State savings banks. State savings banks at present operating (with date of establishment shown in parentheses) are: The State Savings Bank of Victoria (1841); The Savings Bank of South Australia (1848); the Savings Bank Division of the Rural and Industries Bank of Western Australia (1956).

Trustee savings banks. Two trustee savings banks, The Hobart Savings Bank and Launceston Bank for Savings, operate within Tasmania. These Banks commenced business in 1845 and 1835 respectively.

Private Savings banks. The Bank of New South Wales Savings Bank Ltd, the Australia and New Zealand Savings Bank Ltd, and the C.B.C. Savings Bank Ltd commenced business in 1956, the E.S. & A. Savings Bank Ltd in 1961, The Bank of Adelaide Savings Bank Ltd, The National Bank Savings Bank Ltd, and The Commercial Savings Bank of Australia Ltd in 1962.

(iv) *Development banks.* These comprise the Commonwealth Development Bank of Australia and the Australian Resources Development Bank Ltd.

Reserve Bank of Australia

The Reserve Bank of Australia, established under the *Reserve Bank Act* 1959, which came into operation on 14 January 1960, continued in existence the body corporate known as the Commonwealth Bank of Australia. An account of the progress and development of that bank is given in earlier issues of the Year Book (*see* No. 37, pages 570–2, and No. 45, pages 735–7).

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act* 1959–1966, which states:

> 'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act* 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,
>
> (*a*) the stability of the currency of Australia; (*b*) the maintenance of full employment in Australia; and (*c*) the economic prosperity and welfare of the people of Australia.'

In addition to its functions as a Central Bank, the Bank controls the Australian Note Issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as a banker to the Commonwealth and some of the States.

Management

Under the provisions of the *Reserve Bank Act* 1959–1966 the policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Central banking business

Under the powers it possessed under the *Commonwealth Bank Act* 1911–1943 and under its war-time powers under the National Security Regulations the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III of the *Commonwealth Bank Act* 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, and these powers were carried through into the present Act constituting the Reserve Bank. Under the provisions of the *Reserve Bank Act* 1959–1966 the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14 January 1960, and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (*a*) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (*b*) the remainder shall be paid to the Commonwealth.

Note Issue Department

The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the *Reserve Bank Act* 1959–1966 the profits of the Note Issue Department are paid to the Commonwealth.

Rural Credits Department

The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the Bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the *Reserve Bank Act* 1959–1966 the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14 January 1960, and $4,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (*a*) one-half to the credit of the Rural Credits Department Reserve Fund and (*b*) one-half to the credit of the Rural Credits Development Fund.

RESERVE BANK OF AUSTRALIA: LIABILITIES, 30 JUNE 1965 TO 1969

($ million)

30 June—	Capital and reserve funds	Development fund	Special reserve—premium on gold sold	Australian notes on issue	Deposits of trading banks: Statutory reserve deposit accounts	Deposits of trading banks: Other	Deposits of savings banks	Other deposits, bills payable and other liabilities	Total
CENTRAL BANKING BUSINESS									
1965 .	61.3	..	..	..	654.7	100.4	429.6	347.2	1,593.2
1966 .	65.3	..	..	..	471.9	130.2	418.6	351.6	1,437.6
1967 .	68.8	..	..	..	473.8	98.9	492.5	355.3	1,489.3
1968 .	60.1	..	..	..	456.4	117.9	495.8	327.6	1,457.8
1969 .	63.0	..	..	..	565.6	60.4	535.2	658.0	1,882.1
NOTE ISSUE DEPARTMENT									
1965 .	..	..	9.5	862.4	..	..	..	21.3	893.2
1966 .	..	..	9.5	835.3	..	..	..	21.5	866.2
1967 .	..	..	9.5	930.1	..	..	..	22.1	961.7
1968 .	..	..	..	998.5	..	..	..	20.3	1,018.8
1969 .	..	..	..	1,091.5	..	..	..	45.9	1,137.4
RURAL CREDITS DEPARTMENT									
1965 .	14.7	0.6	..	..	..	..	..	227.7	243.1
1966 .	15.3	0.7	..	..	..	..	..	158.7	174.7
1967 .	16.0	0.7	..	..	..	..	..	344.2	261.0
1968 .	16.7	0.8	..	..	..	..	..	212.0	229.6
1969 .	17.6	0.9	..	..	..	..	..	461.8	480.3
TOTAL(*a*)									
1965 .	76.1	0.6	9.5	862.4	654.7	100.4	429.6	382.1	2,515.6
1966 .	80.7	0.7	9.5	835.3	471.9	130.2	418.6	389.0	2,335.8
1967 .	84.8	0.7	9.5	930.1	473.8	98.9	492.5	393.6	2,483.9
1968 .	76.9	0.8	..	998.5	456.4	117.9	495.8	315.9	2,462.2
1969 .	80.6	0.9	..	1,091.5	565.6	60.4	535.2	420.8	2,754.9

(*a*) Inter-departmental accounts have been offset.

RESERVE BANK OF AUSTRALIA: ASSETS, 30 JUNE 1965 TO 1969

($ million)

30 June—	Gold and balances held abroad (*a*)	Other overseas securities	Australian notes, coin	Australian Government securities (*b*)	Cheques and bills of other banks	Loans, advances, bills discounted, all other assets(*c*)	Bank premises (*d*)	Bills receivable and remittances in transit	Total
CENTRAL BANKING BUSINESS									
1965 .	506.3	237.1	10.1	464.4	32.6	277.1	22.4	43.1	1,593.2
1966 .	551.5	171.3	24.0	392.2	15.7	220.4	29.1	33.5	1,437.6
1967 .	396.9	168.8	12.4	420.6	9.2	396.1	30.9	54.3	1,489.3
1968 .	349.3	182.0	9.5	536.2	8.0	263.7	33.8	75.3	1,457.8
1969 .	589.1	231.6	8.4	386.0	10.8	570.1	35.0	51.1	1,882.1
NOTE ISSUE DEPARTMENT									
1965 .	381.1	174.1	..	337.8	..	0.2	..	..	893.2
1966 .	435.0	134.8	..	296.2	..	0.2	..	..	866.2
1967 .	394.5	174.8	..	391.7	..	0.5	0.2	..	961.7
1968 .	315.5	151.4	..	501.0	..	(*e*)50.8	0.2	..	1,018.8
1969 .	164.5	198.5	..	457.3	..	(*e*)316.8	0.3	..	1,137.4
RURAL CREDITS DEPARTMENT									
1965 .	..	..	..	..	..	243.1	..	..	243.1
1966 .	..	..	..	..	..	174.7	..	..	174.7
1967 .	..	..	..	..	..	361.0	..	..	361.0
1968 .	..	..	..	..	..	229.6	..	..	229.6
1969 .	..	..	..	..	..	480.3	..	..	480.3
TOTAL(*f*)									
1965 .	887.3	411.3	10.1	802.3	32.6	306.5	22.4	43.1	2,515.6
1966 .	986.5	306.1	24.0	688.5	15.7	252.4	29.1	33.5	2,335.8
1967 .	791.4	343.6	12.4	812.4	9.2	429.5	31.0	54.3	2,483.9
1968 .	664.8	333.5	9.5	1,037.2	8.0	300.1	34.0	75.3	2,462.2
1969 .	753.5	430.1	8.4	843.3	10.8	622.4	35.3	51.1	2,754.9

(*a*) Includes currency at short call. (*b*) Includes Treasury bills and Treasury notes. (*c*) After deducting provision for debts considered bad or doubtful. (*d*) At cost, less amounts written off. (*e*) Includes interest-bearing deposit account established with the Central Bank. (*f*) Inter-departmental accounts have been offset.

RESERVE BANK OF AUSTRALIA: NET PROFITS, 1964-65 TO 1968-69
($ million)

					Distributed to—			
	Central Banking Business	Note Issue Department	Rural Credits Department	Total	Commonwealth of Australia	Reserve Bank Reserve fund	Rural Credits Department: Reserve fund	Rural Credits Department: Development fund
1964–65	15.3	30.5	1.0	46.8	41.0	4.8	0.5	0.5
1965–66	8.7	31.1	1.2	41.0	35.8	4.0	0.6	0.6
1966–67	7.9	34.3	1.3	43.6	38.8	3.5	0.7	0.7
1967–68	4.4	23.0	1.5	29.0	26.2	1.3	0.7	0.7
1968–69	5.7	23.8	1.6	31.1	26.6	2.9	0.8	0.8

Trading banks

Not all trading banks use 30 June as the end of their accounting year. In the tables on pages 486–8 balance sheet and profit and loss account information for the years 1968 and 1969 is shown for each bank as at the date on which its accounting year ends. The dates used are: 30 June—Commonwealth Trading Bank of Australia, The Commercial Bank of Australia Ltd, The Commercial Banking Co. of Sydney Ltd, The Rural Bank of New South Wales and the State Bank of South Australia; 30 September—Australia and New Zealand Bank Ltd, The Bank of Adelaide, Bank of New South Wales and The National Bank of Australasia Ltd; 30 August The Brisbane Permanent Building and Banking Co. Ltd; 31 March—The Rural and Industries Bank of Western Australia. Up to 1968 The English, Scottish and Australian Bank Ltd used 30 June as the end of its accounting period but as from 1969 this bank changed to 30 September. These tables relate to liabilities and assets both inside and outside Australia and exclude the overseas banks, namely the Bank of China, Bank of New Zealand and Banque Nationale de Paris.

In the tables on pages 489–90 figures shown for averages of liabilities and assets are the average of liabilities and assets within Australia (including Papua, New Guinea and other External Territories) of the banks, including the three overseas banks, on the weekly balance days (Wednesdays) during the period concerned. Averages of debits to customers' accounts and new lending commitments are averages for weeks ended on the Wednesdays during the period.

In the classification of bank advances, borrowers are classified into two main groups:

Resident borrowers comprising all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia, and

Non-resident borrowers comprising all other persons and institutions, including companies incorporated abroad, which, although represented, do not carry on business in Australia.

Advances to resident borrowers are classified into:

Business advances which are advances to partnerships, companies and other institutions engaged in business in Australia, advances to individuals actively engaged in business or a profession on their own behalf if the advances are mainly for purposes of that business or profession, and advances to mutual, co-operative and benefit societies which distribute their profits to members by way of dividends, rebates of charges for goods and services, or increased benefits.

Separate figures are shown for business advances to companies and to other (unincorporated) businesses and advances are also classified to the main industry of borrower.

Advances to public authorities which are advances to local and semi-governmental authorities including separately constituted government business undertakings but not Commonwealth and State governments.

Personal advances which are advances to individuals for purposes other than carrying on a business or profession.

Advances to non-profit organisations which are advances to organisations which are not operated for the purpose of making a profit or gain to individual members, but for the purposes of the organisations or for the benefit of the community in general.

The classification used for overdraft limits is the same as that used for the classification of bank advances (*see* above) while abridged versions of this classification are used for bank deposits and new and increased lending commitments.

At 30 June 1969 the maximum rate of interest paid by trading banks on fixed deposits for the following terms were: 30 days but less than 3 months—4.25 per cent; 3 months but less than 12 months —4.25 per cent; 12 months but less than 18 months—4.50 per cent; 18 months—4.75 per cent; and over 18 months to 24 months—4.75 per cent. The maximum rate of interest charged on overdrafts was 7.50 per cent and the maximum flat rate on unsecured personal loans was 6.00 per cent.

TRADING BANKS: NUMBER OF BRANCHES(*a*) AND AGENCIES STATES AND TERRITORIES, 30 JUNE 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Branches—									
Major trading banks	1,241	1,095	597	363	296	87	11	32	3,722
Other trading banks	167	2	2	35	56	..	..	..	262
All trading banks—									
Metropolitan area	820	705	233	214	202	26	5	32	2,237
Elsewhere	944	528	476	229	217	79	8	7	2,488
Total branches	*1,764*	*1,233*	*709*	*443*	*419*	*105*	*13*	*39*	*4,725*
Total agencies	*366*	*403*	*272*	*311*	*167*	*64*	*14*	*20*	*1,617*

(*a*) Includes head offices.

TRADING BANKS: LIABILITIES(*a*), 1968 AND 1969
($'000)

Bank	*Paid-up capital*	*Reserve funds (used in business of bank)*	*Final dividend proposed*	*Balance of profit and loss account*	*Total shareholders' funds or total capital and reserve funds*	*Balances due to other banks*	*Deposits, bills payable and other liabilities (b)*	*Total*
1969—								
Major trading banks—								
Commonwealth Trading Bank of Australia	(*c*)14,858	16,965	..	..	31,823	5,593	1,558,262	1,595,678
Australia and New Zealand Bank Ltd	33,132	29,980	..	6,022	69,134	217,557	1,338,312	1,625,003
The Bank of Adelaide	15,785	9,882	580	1,053	27,300	5,433	109,379	142,113
Bank of New South Wales	66,680	59,864	4,668	8,270	139,481	12,841	2,002,809	2,155,130
The Commercial Bank of Australia Ltd	20,342	18,270	890	1,590	41,092	28,300	689,591	758,982
The Commercial Banking Co. of Sydney Ltd	19,125	18,028	1,052	2,069	40,274	21.567	643,344	705,184
The English, Scottish and Australian Bank Ltd	18,072	11,295	..	1,630	30,996	26,300	574,184	631,481
The National Bank of Australasia Ltd	25,223	24,500	1,387	1,162	52,272	18,286	1,131,624	1,202,181
Total, major trading banks	*213,216*	*188,783*	*8,577*	*21,796*	*432,372*	*335,877*	*8,047,505*	*8,815,754*
Other trading banks—								
The Brisbane Permanent Building and Banking Co. Ltd	2,500	1,200	100	157	3,957	..	10,694	14,651
The Rural Bank of New South Wales (General Bank Department)	(*d*)18,135	(*e*)43,796	..	..	61,931	..	342,572	404,503
State Bank of South Australia	(*f*)13,778	7,910	..	..	21,688	..	(*g*)125,406	147,094
The Rural and Industries Bank of Western Australia (Rural Department)	(*h*)22,230	3,969	..	..	26,198	..	(*i*)145,391	171,589
Total, other trading banks	*56,643*	*56,875*	*100*	*157*	*113,774*	..	*624,063*	*737,837*
Total, trading banks, 1969	**269,859**	**245,658**	**8,677**	**21,953**	**546,146**	**335,877**	**8,671,568**	**9,553,591**
Total, trading banks, 1968	245,572	217,798	10,428	15,636	489,434	229,594	8,001,043	8,720,071

(*a*) For dates of balance sheets *see* page 485. (*b*) Includes provision for contingencies. (*c*) Amount specified as capital in the *Commonwealth Banks Act* 1959. (*d*) Inscribed stock and debentures issued for capital purposes. (*e*) Includes special reserve built up from share of profits of the Commonwealth Savings Bank in New South Wales. (*f*) Capital provided by State Government of South Australia. (*g*) Includes $83,258,557 of advances by State Treasurer to Home Builders' Fund. (*h*) Capital provided by State Government of Western Australia. The Sinking Fund established for redemption of capital has been deducted. (*i*) Includes Savings Bank deposits, $61,499,127.

TRADING BANKS: ASSETS(*a*), 1968 AND 1969

($'000)

Bank	Coin, bullion, notes and cash at Reserve Bank	Money at short call overseas	Australian public securities: Commonwealth Government: Treasury bills and notes	Australian public securities: Commonwealth Government: Other securities	Australian public securities: Local and semi-govt. authorities	Other public securities	Other securities	Loans to authorised dealers in short-term money market
1969—								
Major trading banks—								
Commonwealth Trading Bank of Australia	39,905	9,750	8,196	300,110	15,237	735	7,136	16,890
Australia and New Zealand Bank Ltd	55,105	10,165	8,773	135,457	..	36,343	11,944	19,550
The Bank of Adelaide	5,334	1,051	500	14,816	..	..	19,217	.
Bank of New South Wales	53,043	16,866	23,149	317,009	..	8,442	40,647	32,393
The Commercial Bank of Australia Ltd	18,610	1,768	450	88,392	635	5,345	19,758	5,600
The Commercial Banking Co. of Sydney Ltd	15,778	1,286	3,487	107,221	..	..	12,004	16,730
The English, Scottish and Australian Bank Ltd	20,766	15,490	7,010	85,833	..	1,060	10,443	10,700
The National Bank of Australasia Ltd	20,569	1 007	16,901	155,695	..	..	11,658	22,925
Total, major trading banks	*229,111*	*57,383*	*68,465*	*1,204,533*	*15,871*	*51,924*	*132,806*	*124,788*
Other trading banks—								
The Brisbane Permanent Building and Banking Co. Ltd	183	..	..	1,317	13	..	927	300
The Rural Bank of New South Wales (General Bank Department)	8,237	..	..	76,816	1,277	..	..	33,077
State Bank of South Australia	1,563	..	..	7,700	20	..	15,750	..
The Rural and Industries Bank of Western Australia (Rural Department)(*d*)	(*e*)11,211	..	9,291	54,456	21,742	..	..	..
Total, other trading banks	*21,194*	..	*9,291*	*140,289*	*23,052*	..	*16,677*	*33,377*
Total, trading banks, 1969	**250,305**	**57,383**	**77,756**	**1,344,822**	**38,923**	**51,924**	**149,483**	**158,165**
Total, trading banks, 1968	206,593	32,978	67,745	1,230,054	37,226	44,984	115,869	120,950

Bank	Statutory reserve deposit account with Reserve Bank	Cheques and bills of, and balances with and due from other banks	Loans(*b*), advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1969—							
Major trading banks—							
Commonwealth Trading Bank of Australia	114,092	35,407	757,184	13,077	264,214	13,745	1,595,679
Australia and New Zealand Bank Ltd	84,372	154,389	900,658	36,781	167,146	4,319	1,625,003
The Bank of Adelaide	9,257	10,347	69,263	5,960	4,400	1,968	142,113
Bank of New South Wales	142,640	86,165	1,130,750	33,376	264,241	6,409	2,155,130
The Commercial Bank of Australia Ltd	50,332	37,410	450,639	18,961	58,131	2,952	758,982
The Commercial Banking Co. of Sydney Ltd	50,812	25,518	367,889	16,441	72,398	15,620	705,184
The English, Scottish and Australian Bank Ltd	46,422	33,375	303,218	15,024	72,232	9,909	631,481
The National Bank of Australasia Ltd	84,613	24,550	596,248	23,360	211,057	33,597	1,202,181
Total, major trading banks	*582,540*	*407,163*	*4,575,849*	*162,980*	*1,113,821*	*88,519*	*8,815,754*
Other trading banks—							
The Brisbane Permanent Building and Banking Co. Ltd	174	1,199	10,377	149	..	13	14,651
The Rural Bank of New South Wales (General Bank Department)	..	11,565	241,607	14,415	12,846	4,662	404,503
State Bank of South Australia	..	781	(*c*)114,498	1,460	4,125	1,197	147,094
The Rural and Industries Bank of Western Australia (Rural Department)(*d*)	..	(*f*)	62,008	6,252	6,629	..	171,589
Total, other trading banks	*174*	*13,545*	*428,490*	*22,276*	*23,600*	*5,872*	*737,837*
Total, trading banks, 1969	**582,714**	**420,708**	**5,004,339**	**185,256**	**1,137,421**	**94,391**	**9,553,591**
Total, trading banks, 1968	454,611	456,446	4,515,210	165,884	1,174,144	97,377	8,720,071

(*a*) For dates of balance sheets *see* page 485. (*b*) Other than loans to authorised dealers in the short-term money market. (*c*) Includes $83,199,569 advances under extended terms—Home Builders' Fund. (*d*) Includes assets held against Savings Bank deposits of $61,499,127. (*e*) Includes accounts with State Treasury. (*f*) Included with Coin, bullion, notes and cash at Reserve Bank.

TRADING BANKS: PROFIT AND LOSS, APPROPRIATION OF PROFITS(*a*)
1968 AND 1969

($'000)

	Profit and loss				*Profits appropriated to—*				
								Dividends(e)	
Bank	*Net earnings (b)*	*Expenses (c)*	*Income land and other taxes and payments in lieu of taxes*	*Net profit*	*Reserve funds (d)*	*Writing-off bank premises*	*Other appropriations*	*Paid and proposed*	*Rate per annum (per cent)*
1969—									
Major trading banks—									
Commonwealth Trading Bank of Australia	57,573	49,673	3,797	4,103	1,779	544	(*f*)1,779	..	..
Australia and New Zealand Bank Ltd	77,285	61,749	8,076	7,459	2,151	..	..	3,976	12
The Bank of Adelaide	7,374	5,685	468	1,220	..	..	..	860	10
Bank of New South Wales	95,002	67,360	13,385	14,258	3,000	450	..	7,302	12
The Commercial Bank of Australia Ltd	32,328	27,010	2,695	2,624	..	200	70	1,780	(*g*)
The Commercial Banking Co. of Sydney Ltd	29,133	23,350	2,237	3,546	1,300	200	..	2,104	11
The English, Scottish and Australian Bank Ltd(*h*)	43,313	34,848	4,999	3,466	..	..	..	2,620	(*i*)
The National Bank of Australasia Ltd	47,448	36,831	5,602	5,015	2,500	..	..	2,774	11
Total, major trading banks	*389,455*	*306,506*	*41,259*	*41,690*	*10,731*	*1,394*	*1,849*	*21,417*	..
Other trading banks—									
The Brisbane Permanent Building and Banking Co. Ltd	828	301	236	291	75	..	..	200	8
The Rural Bank of New South Wales (General Bank Department)	14,080	12,787	n.a.	1,292	646	..	..	..	..
State Bank of South Australia	(*j*)8,018	6,873	n.a.	1,145	1,145	..	..	..	..
The Rural and Industries Bank of Western Australia (Rural Department)(*k*)	(*j*)9,825	9,035	n.a.	790	790	..	..	..	..
Total, other trading banks	*32,751*	*28,996*	*236*	*3,518*	*2,656*	..	..	*200*	..
Total, trading banks 1969	**422,206**	**335,502**	**41,495**	**45,208**	**13,387**	**1,394**	**1,849**	**21,617**	..
Total, trading banks 1968	365,305	286,859	37,582	40,864	16,726	2,496	1,716	18,688	..

(*a*) For balance dates *see* page 485. (*b*) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts) after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets and losses on realisation of assets, and transfers to the credit of contingencies accounts (out of which accounts provision for all bad and doubtful debts has been made). (*c*) Includes directors' fees. (*d*) Excludes accumulated profits and profit and loss accounts. (*e*) Dividends paid or payable out of profits earned during the year. (*f*) Commonwealth of Australia. (*g*) Four per cent on Preference Stock Units and ten per cent on Ordinary Stock Units. (*h*) In respect of 15 months ended 30 September 1969, *see* page 485. (*i*) Special interim of 2.5 per cent for 3 months' period to 30.9.1968. Interims of 2.25 per cent, 9.75 per cent making 12 per cent for year to 30.9.1969. (*j*) Earnings represent gross earnings; expenses include interest paid, management expenses and provisions for contingencies. (*k*) Includes profit and loss on account of Savings Bank business.

ALL TRADING BANKS: AVERAGE LIABILITIES(a) WITHIN AUSTRALIA(b) JUNE 1965 TO 1969

($ million)

June—	Deposits repayable in Australia				Balances due to other banks	Bills payable and all other liabilities to the public	Total
		Current					
	Fixed	Bearing interest	Not bearing interest	Total			
Major trading banks—							
1965	1,791.1	304.2	2,651.2	4,746.4	34.6	124.0	4,904.9
1966	2,002.6	316.7	2,673.2	4,992.4	25.8	139.2	5,157.4
1967	2,129.1	321.2	2,814.5	5,264.8	30.3	129.5	5,424.5
1968	2,301.8	378.3	3,017.8	5,697.9	41.5	147.1	5,886.6
All trading banks—							
1965	1,909.7	353.0	2,775.7	5,038.4	39.4	229.6	5,307.4
1966	2,136.0	370.9	2,801.5	5,308.4	35.0	253.9	5,597.3
1967	2,274.8	378.9	2,960.0	5,613.7	39.6	256.1	5,909.4
1968	2,472.9	448.6	3,165.5	6,086.9	54.2	284.5	6,425.6
1969—							
Major trading banks—							
Commonwealth Trading Bank of Australia	618.0	69.8	592.1	1,279.9	5.4	21.0	1,306.3
Australia and New Zealand Bank Ltd	372.6	35.5	484.6	892.7	40.6	28.6	961.9
The Bank of Adelaide	37.8	6.2	52.3	96.2	4.6	2.0	102.7
Bank of New South Wales	591.1	118.6	797.2	1,506.9	6.8	26.7	1,540.4
The Commercial Bank of Australia Ltd	225.2	26.1	300.4	551.8	7.5	6.5	565.8
The Commercial Banking Co. of Sydney Ltd	236.1	40.5	285.7	562.3	9.8	20.9	593.1
The English, Scottish and Australian Bank Ltd	189.2	30.8	276.6	496.6	6.2	31.0	533.8
The National Bank of Australasia Ltd	383.1	67.5	440.2	890.7	18.4	38.1	947.2
Total, major trading banks	*2,653.2*	*395.0*	*3,228.9*	*6,277.1*	*99.4*	*174.7*	*6,551.2*
Other trading banks—							
Bank of China	..	0.1	1.4	1.5	..	..	1.5
Bank of New Zealand	3.3	0.3	8.0	11.6	1.1	0.5	13.1
The Brisbane Permanent Building and Banking Co. Ltd	2.0	6.6	..	8.6	0.2	0.7	9.5
Banque Nationale de Paris	7.4	0.4	6.0	13.8	4.7	0.8	19.3
The Rural Bank of New South Wales (General Bank Department)	135.8	59.3	97.5	292.6	5.7	20.6	318.8
State Bank of South Australia	23.9	1.8	11.9	37.6	..	97.1	134.8
The Rural and Industries Bank of Western Australia (Rural Department)	24.9	4.4	33.6	62.8	0.6	27.7	91.1
Total, other trading banks	*197.3*	*73.0*	*158.3*	*428.6*	*12.3*	*147.3*	*588.2*
Total, all trading banks, 1969	**2,850.5**	**467.9**	**3,387.2**	**6,705.6**	**111.7**	**322.0**	**7,139.3**

(a) Average of liabilities at close of business on Wednesdays in June of each year. (b) Includes Papua, New Guinea and other External Territories.

ALL TRADING BANKS: AVERAGE ASSETS(*a*) WITHIN AUSTRALIA(*b*) JUNE 1965 TO 1969

($ million)

June—	Coin, bullion, notes and cash at Reserve Bank	Commonwealth Government securities: Treasury bills and notes	Commonwealth Government securities: Other securities	Loans to authorised dealers in short-term money market	Statutory Reserve Deposit Account with Reserve Bank	Loans(*c*) advances and bills discounted	All other assets (*d*)	Total
Major Trading Banks—								
1965	159.9	20.6	871.2	77.4	656.1	2,631.1	410.9	4,827.1
1966	150.2	38.5	1,019.0	61.0	472.6	2,844.6	504.2	5,090.1
1967	160.0	24.1	1,065.8	73.5	474.0	3,180.9	493.2	5,471.5
1968	150.4	25.1	1,071.8	74.0	456.5	3,597.7	549.0	5,924.4
All trading banks—								
1965	168.4	22.2	952.0	93.7	657.2	2,955.1	447.9	5,296.5
1966	162.8	40.0	1,116.6	74.8	473.5	3,182.8	548.4	5,598.9
1967	172.3	24.6	1,187.0	88.8	475.2	3,547.8	535.1	6,030.8
1968	161.4	27.5	1,188.5	87.7	457.8	4,019.8	600.9	6,543.6
1969—								
Major Trading Banks—								
Commonwealth Trading Bank of Australia	30.3	12.1	312.1	11.4	114.0	718.2	77.7	1,275.9
Australia and New Zealand Bank Ltd	24.8	9.5	133.5	9.0	80.9	593.2	69.3	920.6
The Bank of Adelaide	3.9	..	16.4	..	8.6	64.0	29.9	122.7
Bank of New South Wales	31.5	2.2	325.3	18.8	136.2	984.9	120.1	1,619.1
The Commercial Bank of Australia Ltd	9.8	1.0	91.9	6.2	50.7	364.5	60.7	584.8
The Commercial Banking Co. of Sydney Ltd	15.1	0.6	112.7	6.5	51.1	360.5	60.8	607.3
The English, Scottish and Australian Bank Ltd	14.5	3.0	82.7	12.8	44.4	290.2	61.6	509.2
The National Bank of Australasia Ltd	19.6	19.1	165.9	13.1	80.0	576.8	94.6	969.0
Total major trading banks	*149.4*	*47.5*	*1,240.6*	*77.9*	*565.9*	*3,952.2*	*575.0*	*6,608.5*
Other trading banks—								
Bank of China	0.2	..	..	..	0.1	..	1.4	1.7
Bank of New Zealand	0.1	1.3	0.9	0.3	0.8	8.8	4.9	17.0
The Brisbane Permanent Building and Banking Co. Ltd	0.1	..	1.4	..	0.2	10.0	2.1	13.7
Banque Nationale de Paris	0.3	1.3	1.1	0.7	0.6	13.5	2.9	20.3
The Rural Bank of New South Wales (General Bank Department)	5.1	..	97.1	11.7	..	238.7	18.3	370.8
State Bank of South Australia	1.6	..	7.7	..	..	114.8	30.2	144.3
The Rural and Industries Bank of Western Australia (Rural Department)	1.7	2.8	40.9	4.4	..	45.7	10.6	106.1
Total, other trading banks	*9.1*	*5.4*	*149.0*	*17.1*	*1.6*	*431.5*	*60.3*	*673.9*
Total, all trading banks, 1969	**158.5**	**52.9**	**1,389.6**	**94.9**	**567.6**	**4,383.6**	**635.3**	**7,282.4**

(*a*) Average of assets at close of business on Wednesdays in June of each year. (*b*) Includes Papua and New Guinea. (*c*) Excludes loans to authorised dealers in the short-term money market. (*d*) Includes local government and semi-government securities.

Classification of bank advances, deposits, new and increased lending commitments and overdraft limits

For an explanation of items in the following table *see* notes on page 485.

MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(*a*), STATES, 14 JANUARY 1970

	N.S.W. (*b*) $m	*Vic.* $m	*Qld* (*a*) $m	*S.A.* (*c*) $m	*W.A.* $m	*Tas.* $m	*Aust.* (*a*) $m	*Term loan component* $m
Resident Borrowers—								
Business advances—								
Agriculture, grazing and dairying	365.2	205.1	197.4	82.4	74.4	21.3	945.8	131.7
Manufacturing	295.9	227.5	66.9	41.8	22.9	14.0	669.0	115.6
Transport, storage and communication	34.5	23.0	11.1	3.9	4.8	1.6	78.9	15.0
Finance—								
Building and housing societies	20.7	16.1	2.3	1.1	1.4	0.2	41.8	0.1
Other	65.0	57.9	18.0	14.7	7.4	3.7	166.7	3.8
Total, finance	85.7	74.1	20.4	15.6	8.8	3.9	208.4	4.0
Commerce—								
Retail trade	115.1	78.9	49.9	24.7	19.8	7.6	296.0	8.7
Wholesale trade(*d*)	169.4	111.0	16.5	19.0	28.9	6.1	351.0	10.3
Total, commerce	284.5	189.9	66.4	43.7	48.7	13.7	647.0	19.1
Building and construction	61.1	42.4	16.8	7.0	12.1	2.2	141.5	10.4
Other business	310.2	140.9	75.0	25.8	30.0	6.7	588.6	136.0
Unclassified	27.3	20.3	4.2	3.6	4.1	0.6	60.1	1.0
Total business advances	*1,464.4*	*923.0*	*458.4*	*223.9*	*205.8*	*64.0*	*3,339.4*	*432.7*
of which—								
Companies	966.3	591.4	175.7	117.5	91.6	33.9	1,976.3	303.3
Other	498.1	331.6	282.7	106.4	114.2	30.1	1,363.1	129.4
Advances to public authorities(*e*)	16.0	41.1	3.7	0.9	0.9	0.4	63.1	2.0
Personal advances—								
Building or purchasing own home (individuals)	146.0	65.8	39.3	15.9	20.5	4.3	291.9	. .
Other (including personal loans)	192.1	120.1	60.0	26.0	31.7	7.7	437.6	0.1
Total, personal	338.1	186.0	99.3	41.9	52.2	12.1	729.5	0.2
Advances to non-profit organisations	32.3	17.3	11.9	3.4	4.5	1.1	70.5	2.4
Total, advances to resident borrowers	*1,850.8*	*1,167.4*	*573.3*	*270.0*	*263.4*	*77.5*	*4,202.5*	*437.4*
Advances to non-resident borrowers	*2.0*	*1.4*	*0.1*	*0.1*	*0.1*	. .	*3.8*	. .
Total, all advances	**1,852.8**	**1,168.8**	**573.4**	**270.1**	**263.6**	**77.6**	**4,206.3**	**437.4**

(*a*) Includes Papua and New Guinea. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory. (*d*) Includes temporary advances to woolbuyers. (*e*) Includes local government and semi-government bodies.

MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(*a*) JULY 1968 TO JANUARY 1970

	At second Wednesday of—							
	July 1968		*January 1969*		*July 1969*		*January 1970*	
	Amount ($ m)	*Per cent*	*Amount ($ m)*	*Per cent*	*Amount ($ m)*	*Per cent*	*Amount ($ m)*	*Per cent*
Resident borrowers—								
Business advances—								
Agriculture, grazing and dairying	918.1	25.0	916.3	24.8	938.5	23.2	945.8	22.5
Manufacturing	644.3	17.6	614.7	16.6	673.1	16.7	669.0	15.9
Transport, storage and communication	60.3	1.7	61.0	1.6	75.9	1.9	78.9	1.9
Finance—								
Building and housing societies	39.6	1.1	38.1	1.1	45.5	1.1	41.8	1.0
Other	137.2	3.7	122.9	3.3	130.4	3.3	166.7	4.0
Total, finance	176.8	4.8	161.0	4.4	175.8	4.4	208.4	5.0
Commerce—								
Retail trade	305.3	8.3	275.9	7.5	328.2	8.1	296.0	7.0
Wholesale trade(*b*)	301.7	8.2	348.9	9.5	357.4	8.8	351.0	8.3
Total, commerce	607.0	16.6	624.8	16.9	685.6	17.0	647.0	15.4
Building and construction	120.8	3.3	121.7	3.3	141.3	3.5	141.5	3.4
Other businesses	378.3	10.3	394.0	10.6	478.1	11.8	588.6	14.0
Unclassified	29.2	0.8	29.4	0.8	47.9	1.2	60.1	1.4
Total, business advances	*2,934.8*	*80.0*	*2,922.8*	*79.0*	*3,216.4*	*79.6*	*3,339.4*	*79.4*
of which—								
Companies	1,600.7	43.7	1,642.4	44.4	1,850.9	45.8	1,976.3	47.0
Other	1,334.1	36.4	1,280.4	34.6	1,365.5	33.8	1,363.1	32.4
Advances to public authorities(*c*)	27.0	0.7	55.7	1.5	34.0	0.8	63.1	1.5
Personal advances classified according to main purpose of advance—								
Building or purchasing own home (individuals)	286.8	7.8	287.0	7.7	293.7	7.3	291.9	6.9
Other (including personal loans)	349.0	9.5	360.2	9.8	422.6	10.5	437.6	10.4
Total, personal	635.8	17.3	647.2	17.5	716.3	17.7	729.5	17.3
Advances to non-profit organisations	67.2	1.8	70.6	1.9	68.5	1.7	70.5	1.7
Total, advances to resident borrowers	*3,664.8*	*99.9*	*3,696.3*	*99.9*	*4,035.2*	*99.9*	*4,202.5*	*99.9*
Advances to non-resident borrowers	*2.1*	*0.1*	*2.7*	*0.1*	*3.0*	*0.1*	*3.8*	*0.1*
Total, all advances	**3,666.9**	**100.0**	**3,699.0**	**100.0**	**4,038.3**	**100.0**	**4,206.3**	**100.0**

(*a*) Includes Papua and New Guinea. (*b*) Includes temporary advances to woolbuyers. (*c*) Includes local government and semi-government bodies.

MAJOR TRADING BANKS: CLASSIFICATION OF DEPOSITS(a) WITHIN AUSTRALIA(b) JULY 1968 TO JANUARY 1970

	At second Wednesday of—							
	July 1968		*January 1969*		*July 1969*		*January 1970*	
	Amount ($ m)	*Per cent*	*Amount ($ m)*	*Per cent*	*Amount ($ m)*	*Per cent*	*Amount ($ m)*	*Per cent*
Resident depositors—								
Business deposits—								
Agriculture, grazing and dairying . . .	763.8	14.1	854.1	14.3	814.4	13.9	852.8	13.8
Manufacturing . .	321.0	5.9	405.7	6.8	350.7	6.0	423.4	6.8
Transport, storage and communication . .	85.5	1.6	91.2	1.5	86.7	1.5	91.9	1.5
Finance . . .	386.1	7.1	457.6	7.7	440.9	7.5	411.5	6.6
Commerce . . .	399.3	7.3	480.0	8.0	423.8	7.3	493.4	7.9
Building and construction	166.5	3.1	191.7	3.2	182.3	3.1	204.4	3.3
Other businesses . .	681.4	12.5	718.9	12.1	751.8	12.8	835.3	13.5
Unclassified . . .	58.4	1.1	71.1	1.2	66.4	1.1	66.0	1.1
Total, business deposits	*2,862.0*	*52.7*	*3,270.1*	*54.8*	*3,117.0*	*53.2*	*3,378.5*	*54.5*
of which—								
Companies . .	1,194.8	22.0	1,421.7	23.8	1,365.2	23.3	1,518.0	24.5
Other . . .	1,667.3	30.7	1,848.3	31.0	1,751.8	29.9	1,860.6	30.0
Deposits of public authorities	305.8	5.6	298.2	5.0	341.2	5.8	286.2	4.6
Personal deposits . .	1,906.3	35.1	2,028.3	34.0	2,019.0	34.5	2,148.2	34.6
Deposits of non-profit organisations . . .	259.0	4.8	266.0	4.5	280.3	4.8	289.2	4.7
Total, resident depositors	*5,333.1*	*98.2*	*5,862.6*	*98.3*	*5,757.5*	*98.3*	*6,102.1*	*98.4*
Total, non-resident depositors .	*100.1*	*1.8*	*99.7*	*1.7*	*100.4*	*1.7*	*97.5*	*1.6*
Total, all depositors .	5,433.2	100.0	5,962.3	100.0	5,857.9	100.0	6,199.6	100.0

(a) Excludes deposits of Commonwealth and State Governments. (b) Includes Papua and New Guinea.

MAJOR TRADING BANKS: NEW AND INCREASED LENDING COMMITMENTS TO SELECTED INDUSTRIAL GROUPS(a), SIX MONTHS ENDED JULY 1968 TO JANUARY 1970

(*Source:* Reserve Bank of Australia)

($ million)

	Six months ended second Wednesday of—							
	July 1968		*January 1969*		*July 1969*		*January 1970*	
	Aggregate	*Term loan component*	*Aggregate*	*Term loan component*	*Aggregate*	*Term loan component*	*Aggregate*	*Term loan component*
Business—								
Agriculture, grazing and dairying . . .	(b)198.4	20.6	(b)151.8	18.4	(b)161.5	22.8	(b)139.6	17.7
Manufacturing . . .	134.7	25.5	117.2	22.5	131.2	25.0	151.4	33.3
Finance	27.5	0.3	22.1	0.1	31.2	0.7	28.4	0.1
Commerce(a) . . .	116.9	6.0	114.4	3.2	130.2	8.0	134.9	3.6
Building and construction .	44.7	1.2	43.9	1.9	53.1	1.2	45.5	1.2
Persons—								
Advances for building or purchase of own home (to individuals) . . .	102.7	..	95.5	..	98.5	..	96.6	..
Other (including personal loans)	130.2	..	125.1	..	155.0	..	166.8	..
All other	146.7	9.4	195.5	54.9	202.0	28.5	311.5	114.2
Total . . .	(b)**901.7**	**63.1**	(b)**865.5**	**100.9**	(b)**962.6**	**86.2**	(b)**1,074.6**	**170.2**

(a) Excludes commitments in respect of temporary advances to woolbuyers. (b) Includes Farm Development Loan approvals: $12.3 million, July 1968; $14.3 million, January 1969; $15.7 million, July 1969; $12.5 million, January 1970.

MAJOR TRADING BANKS: CLASSIFICATION OF OVERDRAFT LIMITS OUTSTANDING(*a*), JULY 1968 TO JANUARY 1970

(*Source:* Reserve Bank of Australia)

($ million)

	Second Wednesday of—			
	July 1968	*January 1969*	*July 1969*	*January 1970*
Resident borrowers—				
Business overdraft limits—				
Agriculture, grazing and dairying—				
Mainly sheep grazing	407.6	417.1	401.8	403.8
Mainly wheat growing	126.6	132.5	121.8	125.0
Mainly dairying and pig raising	120.6	119.5	120.9	117.1
Other	257.9	265.7	278.4	286.3
Total, agriculture, etc.	912.8	934.9	922.9	932.2
Manufacturing	1,153.5	1,162.1	1,193.6	1,222.7
Transport, storage and communication	84.6	89.0	95.0	97.3
Finance—				
Building and housing societies	56.3	56.0	61.9	65.7
Pastoral finance companies	101.4	99.1	96.1	99.2
Hire purchase and other finance companies	89.1	78.6	82.0	86.1
Other	80.9	81.9	89.5	93.1
Total, finance	327.7	315.6	329.4	344.2
Commerce(*a*)—				
Retail trade	425.8	438.3	461.4	467.2
Wholesale trade	302.2	319.6	314.4	323.2
Total, commerce(*a*)	728.0	757.9	775.8	790.4
Building and construction	172.2	181.8	196.1	196.1
Other businesses—				
Mining	85.3	81.7	98.2	116.2
Other	423.4	442.1	478.7	497.8
Total, other businesses	508.7	523.8	576.9	614.0
Unclassified	28.7	31.9	39.0	47.6
Total, business overdraft limits	*3,916.3*	*3,996.9*	*4,128.7*	*4,244.4*
Overdraft limits of public authorities	158.9	182.8	176.1	187.7
Personal overdraft limits—				
Building or purchasing own home	341.9	342.2	349.2	350.1
Other	444.1	468.4	519.1	550.6
Total, personal overdraft limits	786.0	810.6	868.4	900.7
Overdraft limits of non-profit organisations	120.2	119.0	118.2	119.2
Total, overdraft limits of resident borrowers	*4,981.4*	*5,109.4*	*5,291.3*	*5,452.0*
Overdraft limits of non-resident borrowers	*2.5*	*3.0*	*3.8*	*4.2*
Total, all overdraft limits	**4,983.9**	**5,112.4**	**5,295.2**	**5,456.2**

(*a*) Excludes limits in respect of temporary advances to woolbuyers, term loans and farm development loans.

MAJOR TRADING BANKS: ADVANCES, BY RATE OF INTEREST(*a*) JUNE 1968 TO DECEMBER 1969

(*Source:* Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

Interest rate per annum	*End of—* *June 1968*	 *December 1968*	 *June 1969*	 *December 1969*
5 per cent and less	3.5	4.3	3.4	4.3
More than 5 per cent but less than 5½ per cent	0.8	0.1	0.4	0.8
5½ per cent	0.6	0.8	0.7	0.2
More than 5½ per cent but less than 6 per cent	4.4	0.6	0.7	0.9
6 per cent	7.9	5.0	4.4	1.0
More than 6 per cent but less than 6½ per cent	8.5	9.2	8.6	4.5
6½ per cent	9.3	8.1	7.7	8.6
More than 6½ per cent but less than 7 per cent	17.0	9.6	10.1	8.5
7 per cent	11.0	16.4	17.0	8.8
More than 7 per cent but less than 7½ per cent	36.1	10.8	11.1	15.8
7½ per cent	. .	33.8	34.5	9.1
More than 7½ per cent and up to 7¾ per cent	. .	. .	. .	35.7
More than 7¾ per cent(*b*)	0.7	1.2	1.4	1.8
Total	**100.0**	**100.0**	**100.0**	**100.0**

(*a*) Excludes term loans and farm development loans. (*b*) Comprises categories of loans specifically exempted from the prescribed maximum overdraft requirement such as, short-term mortgage and bridging loans and post-shipment wool advances subject to a disincentive rate of interest.

MAJOR TRADING BANKS: FIXED DEPOSITS(*a*), BY RATE OF INTEREST, JUNE 1968 TO DECEMBER 1969

(*Source:* Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

End of—	*Interest rate per annum—* *4*	*4.25*	*4.5*	*4.7*	*4.75*	*4.8*	*4.9*	*5*	*Total*
June 1968	25.4	29.3	45.0	. .	0.3	. .	. .	. .	100.0
December 1968	0.4	42.8	42.6	. .	14.2	. .	. .	. .	100.0
June 1969	. .	30.3	39.8	. .	29.8	. .	. .	. .	100.0
December 1969	. .	1.3	36.5	15.6	30.3	2.1	0.8	13.4	100.0

(*a*) Excludes Commonwealth and State Government fixed deposits.

TRADING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS(*a*), STATES AND TERRITORIES, 1964-65 TO 1968-69

($ million)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	935.2	825.3	232.9	170.4	106.3	41.3	3.4	14.5	2,329.3
1965–66	949.0	847.7	232.5	172.8	122.4	43.2	3.8	15.3	2,386.7
1966–67	1,080.2	940.0	256.9	184.4	138.6	47.3	4.5	17.0	2,668.9
1967–68	1,257.9	1,041.8	289.2	201.7	169.1	51.3	5.8	21.2	3,038.0
1968–69	1,526.0	1,214.1	325.3	224.2	209.0	55.9	7.4	50.4	3,612.6

(*a*) Covers all trading banks and in addition the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank. Excludes debits to Commonwealth and State Government accounts in capital cities

Savings banks

For information on the origin of savings banks in Australia, *see* Year Book No. 50, page 854, and earlier issues.

All savings banks, including trustee savings banks, but not State savings banks, are subject to the *Banking Act* 1959–1967. Details of this Act and the special provisions applying to savings banks are given in Year Book No. 46, pages 759–60.

Not all savings banks use 30 June as the end of their accounting year. In the following tables balance sheet and profit and loss account information for the years 1968 and 1969 is shown for each bank as at the date on which its accounting year ends. The dates used are: 30 June—Commonwealth Savings Bank of Australia, The Commercial Savings Bank of Australia, C.B.C. Savings Bank Ltd, The State Savings Bank of Victoria and The Savings Bank of South Australia; 30 September—Australia and New Zealand Savings Bank Ltd, The Bank of Adelaide Savings Bank Ltd, Bank of New South Wales Savings Bank Ltd and The National Bank Savings Bank Ltd; 31 August—The Hobart Savings Bank and Launceston Bank for Savings. Up to 1968 the E.S. & A. Savings Bank Ltd used 30 June as the end of its accounting period but as from 1969 this bank changed to 30 September. These tables relate to liabilities and assets both inside and outside Australia.

The information in the following tables for the Commonwealth Savings Bank, the trustee savings banks and the private savings banks has been obtained from the annual returns lodged with the Commonwealth Statistician under Section 53 of the *Banking Act* 1959–1967, whereas that for State savings banks has been compiled from information in their published annual reports. Particulars for the Commonwealth Savings Bank, The State Savings Bank of Victoria, The Savings Bank of South Australia, The Rural and Industries Bank of Western Australia and the Hobart Savings Bank relate to the end of the month, those for the Launceston Bank for Savings to the last Monday in the month, and those for the other savings banks to the last Wednesday in the month.

The number of operative accounts excludes school bank accounts and small inoperative accounts. The other sections of the tables relating to depositors' balances, etc., include school bank accounts, small inoperative accounts, investment accounts, deposit stock and non-interest bearing cheque accounts at the State Savings Bank of Victoria and the Savings Bank of South Australia, and fixed deposit accounts and non-interest bearing cheque accounts at the trustee savings banks in Tasmania.

At 30 June 1969 all except four savings banks were paying interest on deposits at 3.75 per cent. The other four banks were paying interest at 4 per cent. For accounts other than friendly and other societies the maximum interest bearing amount in any one account was $10,000. For accounts for friendly and other societies the maximum amount in any one account on which interest was paid at the above rates varied between different banks and a lower rate of interest (usually 2.25 per cent) was paid on any excess amount. The maximum rate on loans to local government authorities was 5.875 per cent, the rates on Credit Foncier housing and mortgage loans were 5.50 per cent—6.25 per cent and the rates on loans to co-operative building and housing societies were 5.50—6.00 per cent.

SAVINGS BANKS: NUMBER OF BRANCHES(*a*) AND AGENCIES STATES AND TERRITORIES, 30 JUNE 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Branches—									
Metropolitan area	801	1,067	263	295	223	41	6	39	2,735
Elsewhere	856	733	487	277	220	110	7	. .	2,690
Total branches	*1,657*	*1,800*	*750*	*572*	*443*	*151*	*13*	*39*	*5,425*
Total agencies	*4,465*	*3,456*	*2,584*	*2,444*	*1,736*	*634*	*102*	*96*	*15,517*

(*a*) Includes head offices.

SAVINGS BANKS: LIABILITIES(*a*), 1968 AND 1969

($'000)

Bank	*Paid-up capital*	*Reserve funds (used in the business of the bank)*	*Balance of profit and loss account*	*Total share-holders' funds*	*Deposi-tors' balances*	*Balances due to other banks*	*Bills payable and all other liabilities (b)*	*Total*
1969—								
Commonwealth Savings Bank of Australia	. .	37,360	. .	(*c*)37,360	2,817,288	1,717	93,545	2,949,911
State savings banks(*d*)—								
The State Savings Bank of Victoria(*e*)	. .	34,336	1,249	(*c*)35,585	1,104,253	7,373	54,234	1,201,445
The Savings Bank of South Australia	. .	28,350	177	(*c*)28,527	398,143	4,271	484	431,426
Trustee savings banks—								
The Hobart Savings Bank	. .	2,465	115	2,580	51,815	20	278	54,692
Launceston Bank for Savings	. .	2,250	99	2,349	46,525	6	206	49,085
Private savings banks—								
Australia and New Zealand Savings Bank Ltd	5,000	5,950	754	11,704	463,052	. .	18,742	493,499
The Bank of Adelaide Savings Bank Ltd	1,000	550	218	1,768	35,676	. .	627	38,071
Bank of New South Wales Savings Bank Ltd	8,000	9,500	2,746	20,246	944,544	. .	31,007	995,797
The Commercial Savings Bank of Australia Ltd	3,000	2,100	376	5,476	179,925	. .	2,629	188,030
C.B.C. Savings Bank Ltd	4,000	4,500	326	8,826	259,537	. .	5,553	273,916
E.S. & A. Savings Bank Ltd	2,000	2,350	82	4,432	182,186	. .	7,326	193,944
The National Bank Savings Bank Ltd	2,000	3,000	590	5,590	300,596	. .	7,567	313,753
Total, all savings banks(*d*), 1969	**25,000**	**132,711**	**6,732**	**164,443**	**6,783,540**	**13,387**	**222,198**	**7,183,569**
Total, all savings banks(*d*), 1968	24,000	124,967	6,455	155,422	6,284,441	13,255	203,898	6,657,016

(*a*) For dates of balance sheets *see* page 496. (*b*) Includes provision for contingencies. (*c*) Total reserve funds. (*d*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*e*) Includes *Credit Foncier* Department.

SAVINGS BANKS: ASSETS(*a*), 1968 AND 1969

($'000)

Bank	Coin, bullion, notes and deposits with Reserve Bank	Deposits in Australia with trading banks	Australian public securities			Other securities
			Commonwealth and States		Local and semi-governmental authorities	
			Treasury bills and notes	Other securities		
1969—						
Commonwealth Savings Bank of Australia . . .	250,761	35,415	38,163	1,189,499	419,758	840
State savings banks(*b*)—						
The State Savings Bank of Victoria(*c*) . . .	64,029	59,083	5,209	239,870	373,616	. .
The Savings Bank of South Australia . . .	12,395	25,094	. .	137,585	82,188	. .
Trustee savings banks—						
The Hobart Savings Bank .	825	3,045	. .	9,752	24,229	. .
Launceston Bank for Savings	200	3,032	. .	11,301	15,891	. .
Private savings banks—						
Australian and New Zealand Savings Bank Ltd . .	44,220	4,685	2,564	133,038	136,683	10,191
The Bank of Adelaide Savings Bank Ltd . . .	3,610	538	. .	6,557	11,839	. .
Bank of New South Wales Savings Bank Ltd . .	91,300	25,920	5,990	237,482	299,085	3,484
The Commercial Savings Bank of Australia Ltd .	17,600	1,504	500	43,291	66,096	200
C.B.C. Savings Bank Ltd .	24,000	2,833	2,000	101,777	62,893	. .
E.S. & A. Savings Bank Ltd .	17,041	3,097	1,285	48,291	58,944	. .
The National Bank Savings Bank Ltd . . .	27,700	4,224	5,300	88,173	98,670	. .
Total, all savings banks(*b*), 1969 .	**553,681**	**168,470**	**61,011**	**2,246,616**	**1,649,892**	**14,715**
Total, all savings banks(*b*), 1968 .	533,185	168,884	31,443	2,216,714	1,483,416	10,964

Bank	Loans to authorised dealers in short-term money market	Cheques and bills of, and balances with and due from other banks	Loans(*d*) advances and bills discounted	Bank premises furniture and sites	Bills receivable and re-mittances in transit	All other assets	Total
1969—							
Commonwealth Savings Bank of Australia . . .	2,400	1,730	926,728	51,651	2,007	30,958	2,949,911
State savings banks(*b*)—							
The State Savings Bank of Victoria(*c*) . . .	9,100	. .	417,768	16,500	. .	16,270	1,201,445
The Savings Bank of South Australia . . .	1,900	. .	160,047	7,727	(*e*)	4,491	431,426
Trustee savings banks—							
The Hobart Savings Bank .	2,210	119	12,736	887	9	880	54,692
Launceston Bank for Savings	1,500	38	15,421	797	. .	904	49,085
Private savings banks—							
Australia and New Zealand Savings Bank Ltd . .	12,300	744	144,872	. .	. .	4,202	493,499
The Bank of Adelaide Savings Bank Ltd . . .	3,200	. .	11,492	480	. .	355	38,071
Bank of New South Wales Savings Bank Ltd . .	. .	7,034	307,200	8,413	. .	9,891	995,797
The Commercial Savings Bank of Australia Ltd .	3,800	. .	52,701	544	. .	1,794	188,030
C.B.C. Savings Bank Ltd .	. .	. .	77,648	1,457	. .	1,307	273,916
E.S. & A. Savings Bank Ltd .	2,050	. .	58,547	2,047	. .	2,641	193,944
The National Bank Savings Bank Ltd . . .	1,650	. .	85,330	. .	. .	2,705	313,753
Total, all savings banks(*b*), 1969 .	**40,110**	**9,665**	**2,270,490**	**90,503**	**2,016**	**76,398**	**7,183,569**
Total, all savings banks(*b*), 1968 .	27,450	6,706	2,026,134	82,960	1,632	67,527	6,657,016

(*a*) For dates of balance sheets *see* page 496. (*b*) Excludes Savings Bank Division of the Rural Industries Bank of Western Australia. (*c*) Includes *Credit Foncier* Department. (*d*) Other than loans to authorised dealers in the short-term money market. (*e*) Not available. Included in All other assets.

SAVINGS BANKS: PROFIT AND LOSS, APPROPRIATION OF PROFITS(*a*) AND DIVIDENDS, 1968 AND 1969

($'000)

Bank	*Profit and loss*				*Profits appropriated to—*				
								Dividends(e)	
	Net earnings (b)	*Expenses (c)*	*Income land and other taxes and payments in lieu of taxes*	*Net profit*	*Reserve funds (d)*	*Written-off bank premises*	*Other appropriations*	*Paid and proposed*	*Rates per annum per cent*
1969—									
Commonwealth Savings Bank of Australia	53,054	47,942	687	4,426	1,029	1,446	(*f*)1,951	..	..
State savings banks(*g*)—									
The State Savings Bank of Victoria(*h*)	23,233	21,533	n.a.	1,700	1,232	306	200	..	..
The Savings Bank of South Australia	6,272	5,925	n.a.	347	500	(*i*)	..	..	..
Trustee savings banks—									
The Hobart Savings Bank	901	662	30	209	100	89	20	..	..
Launceston Bank for Savings	894	660	22	212	100	100	13	..	..
Private savings banks—									
Australia and New Zealand Savings Bank Ltd	9,315	6,807	1,175	1,333	700	..	..	600	12
The Bank of Adelaide Savings Bank Ltd	792	462	111	219	100	..	..	100	10
Bank of New South Wales Savings Bank Ltd	18,861	13,163	2,602	3,097	1,000	50	..	1,500	18.75
The Commercial Savings Bank of Australia Ltd	3,318	2,038	597	683	325	20	71	250	8.33
C.B.C. Savings Bank Ltd	4,935	3,226	744	965	600	..	..	400	10
E.S. & A. Savings Bank Ltd(*j*)	4,184	2,536	857	791	500	..	..	300	(*k*)
The National Bank Savings Bank Ltd	5,408	3,555	856	997	850	..	..	250	12.5
Total, all savings banks(*g*), 1969	**131,167**	**108,509**	**7,681**	**14,979**	**7,036**	**2,011**	**2,255**	**3,400**	..
Total, all savings banks(*g*), 1968	121,028	94,385	7,510	19,134	8,819	2,523	3,925	2,875	..

(*a*) For balance dates *see* page 496. (*b*) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts), after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets, and losses on realisation of assets and transfers to the credit of contingencies accounts (out of which accounts provisions for all bad and doubtful debts have been made). (*c*) Includes directors' fees. (*d*) Excludes accumulated profits and profit and loss accounts. (*e*) Dividends paid or payable out of profits earned during year. (*f*) Provisions for settlements under Savings Bank Amalgamation Agreements, $922,798 and Commonwealth of Australia, $1,028,697. (*g*) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (*h*) Includes *Credit Foncier* Department. (*i*) Included in expenses. (*j*) In respect of 15 months ended 30 September 1969, *see* page 496. (*k*) 3 per cent for 3 months period to 30.9.1968 and 12 per cent for 12 months to 30.9.1969.

SAVINGS BANKS: ASSETS WITHIN AUSTRALIA(*a*), END OF JUNE 1968 AND 1969

($ million)

	June 1968	*June 1969*
Coin, bullion and Australian notes	13.3	16.6
Deposits with Reserve Bank	497.2	536.0
Deposits in Australia with trading banks	145.5	152.7
Australian public securities—		
Commonwealth and States (including Treasury bills and Treasury notes)	2,271.1	2,300.6
Local government and semi-governmental authorities	1,486.5	1,651.7
Other securities	5.7	9.4
Loans to authorised dealers in the short-term money market	23.9	31.2
Cheques and bills of other banks and balances with and due from other banks	1.0	1.5
Loans, advances and bills discounted—		
Housing	1,751.2	1,961.5
Other	266.2	301.9
Bank premises, furniture and sites	84.5	92.2
Bills receivable and all other assets	21.4	24.9
Total	**6,567.5**	**7,080.2**

(*a*) Includes assets in Papua, New Guinea and other external Territories.

SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA, 1967-68 AND 1968-69

State or Territory	*1967–68* Number of operative accounts at end of year '000	De-posits (a) $m	With-drawals (a) $m	In-terest added $m	Depos-itors' balances at end of year $m	*1968–69* Number of operative accounts at end of year '000	De-posits (a) $m	With-drawals (a) $m	In-terest added $m	Depos-itors' balances at end of year $m
New South Wales	4,806	2,694.0	2,619.3	66.7	2,125.8	5,042	3,040.2	2,959.0	75.4	2,282.4
Victoria	4,234	2,967.5	2,867.7	59.1	2,085.5	4,452	3,352.8	3,261.7	67.7	2,244.3
Queensland	1,808	959.7	926.5	23.8	757.0	1,907	1,072.8	1,037.9	27.1	819.0
South Australia	1,418	841.9	825.0	21.6	643.7	1,472	941.6	917.5	24.0	691.8
Western Australia	970	557.3	525.6	11.1	373.6	1,036	663.7	637.3	13.0	413.0
Tasmania	432	203.9	199.0	5.9	177.8	452	217.5	211.8	6.5	190.0
Northern Territory	44	28.9	27.5	0.4	14.4	52	36.2	33.7	0.5	17.4
Australian Capital Territory	109	102.3	97.9	1.3	43.7	122	99.0	95.1	1.5	49.1
Australia	**13,823**	**8,355.5**	**8,088.5**	**189.9**	**6,221.5**	**14,535**	**9,423.8**	**9,154.1**	**215.8**	**6,707.1**

(*a*) Includes inter-branch transfers.

SAVINGS BANKS: DEPOSITORS' BALANCES PER HEAD OF POPULATION IN AUSTRALIA, JUNE 1965 TO 1969

($)

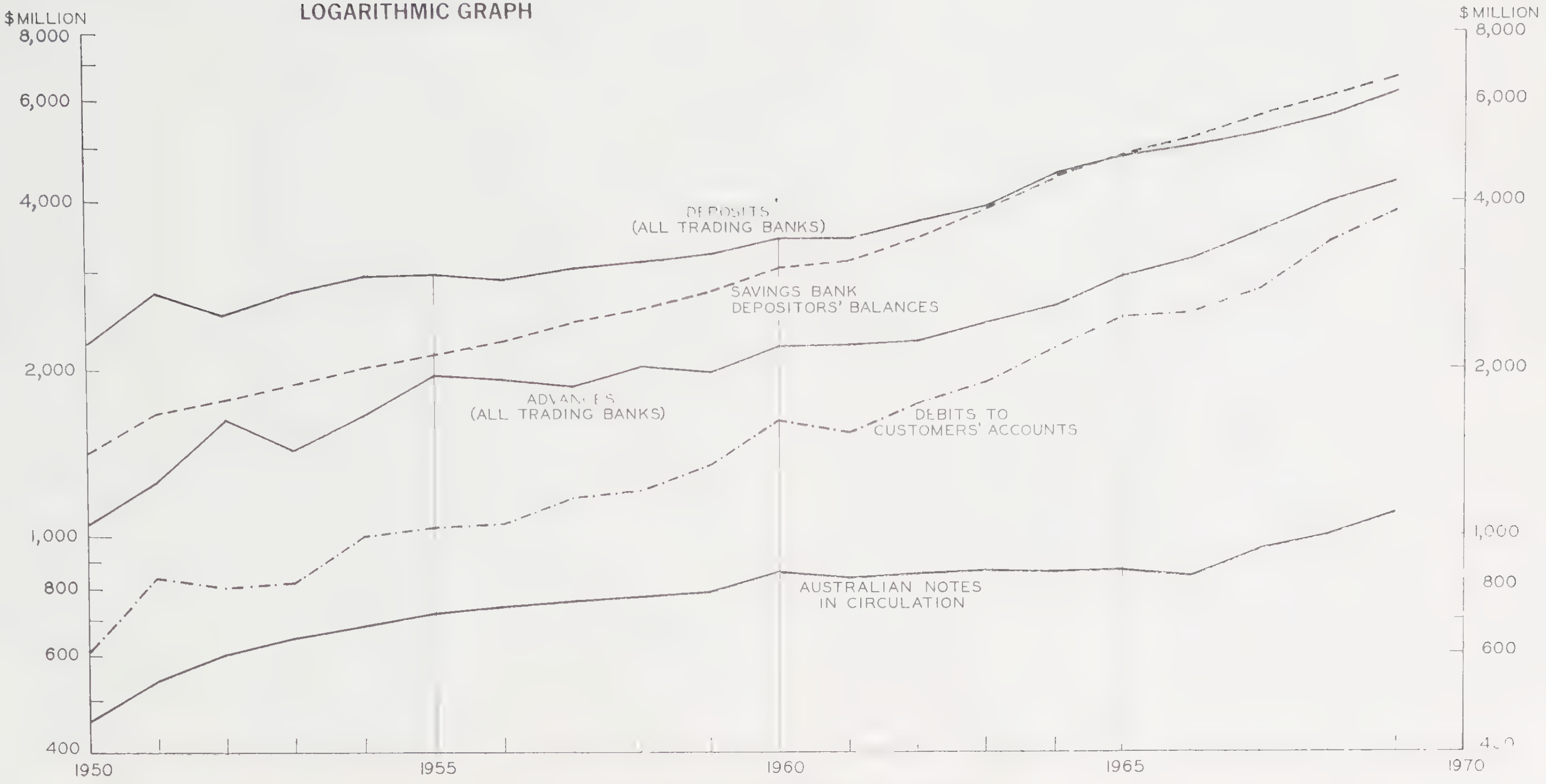
End of June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965	411.85	512.08	360.60	486.40	316.95	368.93	170.47	312.54	429.11
1966	431.29	542.19	380.84	510.38	345.32	399.53	187.34	328.54	452.92
1967	460.73	588.42	411.39	544.47	377.48	443.93	210.80	367.00	488.11
1968	485.10	627.42	437.07	572.21	410.86	465.48	226.16	387.48	517.13
1969	509.99	663.07	463.38	604.82	436.83	489.22	255.67	402.67	545.50

SCHOOL SAVINGS BANKS: AUSTRALIA, JUNE 1965 TO 1969

End of June—	*Number of school agencies*	*Number of operative accounts*	*Depositors' balances*	*Average balance per operative account*
		'000	$'000	$
1965	9,544	1,364	22,055	16.16
1966	9,999	1,390	23,313	16.77
1967	10,301	1,445	24,815	17.18
1968	10,400	1,516	26,482	17.47
1969	10,957	1,584	28,476	17.98

BANKING: AUSTRALIA

1950 TO 1969



*EXCLUDES COMMONWEALTH AND STATE GOVERNMENTS

PLATE 32

Development banks

Commonwealth Development Bank of Australia

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act* 1959 and commenced operations on 14 January 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act the Bank is authorised to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries, which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation, and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14 January 1960, $10 million provided by the Reserve Bank, $20 million appropriated from the Consolidated Revenue Fund in 1961–62 by the *Commonwealth Banks Act* 1961 and the *Commonwealth Banks Act* 1962, $10 million appropriated in 1963–64 by the *Commonwealth Banks Act* 1963, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund, which at 30 June 1969 stood at $27.2 million. Net profits in 1967–68 and 1968–69 amounted to $2.1 million and $1.9 million respectively.

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: LIABILITIES 30 JUNE 1965 TO 1969

($ million)

30 June—	*Capital*	*Reserve fund*	*Balances due to other banks*	*Deposits, bills payable, all other liabilities*	*Total*
1965 . . .	61.7	19.0	45.0	25.1	150.8
1966 . . .	61.7	21.2	65.9	27.8	176.6
1967 . . .	61.7	23.2	91.3	30.0	206.1
1968 . . .	61.7	25.2	112.8	32.3	232.0
1969 . . .	61.7	27.2	131.3	34.7	254.9

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: ASSETS 30 JUNE 1965 TO 1969

($ million)

30 June—	*Coin, bullion, notes and cash at bankers*	*Australian public securities (incl. Treasury bills)*	*Other securites*	*Loans to authorised dealers in short-term money market*	*Cheques and bills of other banks*	*Loans, advances, and bills discounted*	*All other assets*	*Total*
1965 . . .	0.3	1.2	0.4	0.7	1.0	146.8	0.5	150.8
1966 . . .	0.5	1.2	0.3	0.4	1.1	172.6	0.6	176.6
1967 . . .	0.3	1.2	0.3	0.5	1.2	202.0	0.6	206.1
1968 . . .	0.5	1.2	0.3	0.4	1.4	227.5	0.8	232.0
1969 . . .	0.8	1.2	0.2	. .	1.5	250.2	0.9	254.9

Australian Resources Development Bank Limited

The Australian Resources Development Bank Limited was established in 1967 with equity capital of $3 million subscribed in equal proportions by the eight major trading banks. It was given the status of a bank by the *Banking Act* 1967 and opened for business on 29 March 1968. The main object of the Australian Resources Development Bank is to assist Australian enterprises to participate more fully in the development of Australia's natural resources. It provides finance to enterprises engaged in major developmental projects by direct loans, investing in equity capital or by refinancing loans made by trading banks acting individually or as a group. The Australian Resources Development Bank obtains funds by accepting deposits and by borrowing on the Australian and overseas capital markets.

AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED: LIABILITIES
30 SEPTEMBER 1968 AND 1969
($ million)

30 September—	*Capital*	*Reserve fund*	*Balances due to other banks*	*Deposits, bills payable, all other liabilities*	*Total*
1968 . . .	3.0	. .	2.3	28.2	33.4
1969 . . .	3.0	0.3	15.4	73.2	91.9

AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED: ASSETS
30 SEPTEMBER 1968 AND 1969
($ million)

30 September—	*Coin, bullion, notes and cash at bankers*	*Australian public securities (incl. Treasury bills)*	*Other securites*	*Loans to authorised dealers in short-term money market*	*Cheques and bills of other banks*	*Loans, advances, and bills discounted*	*All other assets*	*Total*
1968 . . .	1.2	0.5	. .	0.5	24.3	6.8	0.2	33.4
1969 . . .	0.3	0.2	. .	0.1	89.8	1.0	0.4	91.9

INSURANCE

Legislation

Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to 'insurance other than State insurance; also State insurance extending beyond the limits of the State concerned'. Commonwealth legislation includes the *Marine Insurance Act* 1909–1966 defining the limits of marine insurance and regulating the terms of contracts, etc., the *Insurance Act* 1932–1966 requiring the lodgment of deposits by insurance companies, and the *Life Insurance Act* 1945–1965 generally regulating life insurance business in Australia. The *Marine Insurance Act* 1909–1966 and the *Insurance Act* 1932–1966 have limited application, and except for life insurance business, which is regulated by the *Life Insurance Act* 1945–1965, insurance business is conducted almost entirely under State laws.

Insurance Act 1932-1966

Companies, persons or associations of persons carrying on insurance business in Australia or in, any Territory of Australia are required to lodge a deposit with the Commonwealth Treasurer. Money deposited is invested by the Treasurer in prescribed securities selected by the depositor, and all interest is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies. Deposits held by States on 1 February 1932 could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act: staff superannuation schemes; schemes of religious organisations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and under the *Life Insurance Act* 1945–1965 ceased to apply to life insurance business.

Life Insurance Act 1945-1965

The objects of this Act are: (*a*) to replace all State legislation on the subject of life insurance, except that relating to the life insurance operations of State Government insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (*b*) to appoint an Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; (*c*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency. The Act came into operation on 20 June 1946. A summary of the provisions of the Act is given in Year Book No. 37, pages 595–7. The Insurance Commissioner issues an annual report which contains detailed information on the operations of life insurance companies.

Deposits under Insurance Acts

Deposits lodged under the Insurance Acts at 30 June 1969 totalled $36.6 million, comprising $4.6 million held by the Commonwealth in respect of life insurance, and $32.0 million held by the Commonwealth in respect of other forms of insurance. The deposits consisted of Commonwealth Government securities $22.1 million, United Kingdom Government securities $1.8 million, fixed deposits $0.6 million, bank guarantees and undertakings $8.5 million, corporation debentures and stock $0.9 million, and titles and mortgages $2.7 million.

Life insurance

Since 1947, returns lodged under the *Life Insurance Act* 1945–1965 have been used to compile life insurance statistics. Except where otherwise indicated, the figures in the succeeding paragraphs refer only to Australian business. Business in the Territories of Papua and New Guinea is, however, included in the Australian figures unless otherwise stated. The information shown has been compiled from returns of life insurance business submitted in the financial years which ended during the year stated.

Offices transacting business

The number of offices which transacted life insurance business in Australia during 1968 was 47, including 2 State Government institutions which conduct life insurance business only in their own States. Of the remaining 45 offices, 32 were companies incorporated outside Australia or were subsidiaries of such companies. Eight companies, including 3 incorporated outside Australia, were mutual companies. All companies conducted ordinary business and 44 conducted superannuation business. Industrial business was conducted by 12 companies, 11 of which also conducted superannuation business.

LIFE INSURANCE: SUMMARY

Year	*Insurance and endowment policies*			*Annuity policies*	
	Number of policies	*Sum insured ($ million)*	*Annual premiums ($ million)*	*Number of policies*	*Annuities per annum ($ million)*
			ORDINARY BUSINESS		
New policies issued—					
1964	362,118	1,544.2	35.3	115	0.1
1965	370,300	1,650.8	37.9	102	0.1
1966	380,276	1,816.9	40.4	75	0.1
1967	409,403	2,102.5	47.3	85	0.1
1968	436,928	2,606.6	59.1	95	0.1
Policies discontinued or reduced(*a*)—					
1964	234,633	536.6	13.7	144	..
1965	233,122	579.7	14.4	224	0.1
1966	250,789	651.4	16.1	149	0.1
1967	246,139	709.4	17.4	210	0.1
1968	258,639	799.7	18.2	186	0.1
Policies existing at end of—					
1964	3,921,635	9,384.6	251.4	2,588	1.0
1965	4,058,813	10,457.6	275.0	2,467	1.0
1966	4,188,300	11,623.0	299.3	2,393	1.0
1967	4,351,564	13,016.1	329.2	2,268	1.0
1968	4,529,853	14,823.0	370.1	2,177	1.1
			INDUSTRIAL BUSINESS		
New policies issued—					
1964	127,164	115.2	4.5	..	..
1965	130,249	120.3	4.8	..	..
1966	132,246	130.3	5.1	..	..
1967	136,764	140.4	5.5	..	..
1968	132,504	145.7	5.8	..	..
Policies discontinued or reduced(*a*)—					
1964	228,995	69.1	3.2	..	..
1965	226,080	72.6	3.3	..	..
1966	243,759	82.7	3.7	..	..
1967	177,219	77.7	3.3	..	..
1968	174,576	86.3	3.7	..	..
Policies existing at end of—					
1964	2,850,977	823.2	35.3	..	..
1965	2,755,146	870.9	36.7	..	..
1966	2,643,633	918.5	38.1	..	..
1967	2,603,178	981.2	40.3	..	..
1968	2,561,106	1,040.6	42.4	..	..
			SUPERANNUATION BUSINESS		
New policies issued—					
1964	78,353	764.0	18.6	216	4.6
1965	88,798	906.8	23.0	65	6.4
1966	105,455	929.4	26.5	57	3.8
1967	88,478	1,053.3	29.4	81	8.6
1968	89,085	1,328.1	33.1	83	6.3
Policies discontinued or reduced(*a*)—					
1964	68,419	300.7	7.9	994	3.3
1965	60,143	401.9	8.9	192	9.6
1966	66,716	401.6	10.0	45	4.0
1967	73,319	434.7	11.3	44	3.1
1968	67,338	539.8	14.3	60	7.0
Policies existing at end of—					
1964	617,184	3,096.1	86.6	980	26.6
1965	645,837	3,599.1	100.4	853	23.5
1966	684,576	4,126.9	117.2	868	23.3
1967	699,735	4,745.4	135.3	905	28.8
1968	721,482	5,533.7	154.2	928	28.1

(*a*) Includes policies matured, surrendered, forfeited, transferred to overseas registers, converted to other classes of business, etc.

LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA, STATES AND TERRITORIES(*a*), 1968

	Insurance and endowment policies				*Annuity policies*		
State or Territory(a)	*Number of policies*	*Sum insured ($'000)*	*Bonus additions ($'000)*	*Annual premiums ($'000)*	*Number of policies*	*Annuities per annum ($'000)*	*Annual premiums ($'000)*
			ORDINARY BUSINESS				
New South Wales	1,385,996	4,084,216	476,468	109,372	768	342	5
Victoria . .	1,165,722	3,978,453	429,683	99,502	741	397	4
Queensland(*b*) .	789,348	2,351,263	277,158	56,096	182	68	. .
South Australia(*c*)	507,933	1,466,696	151,482	38,359	186	58	1
Western Australia	360,200	1,161,502	117,379	29,105	124	48	2
Tasmania . .	149,994	458,237	51,071	11,512	55	28	3
Australian Capital Territory .	170,660	1,322,682	80,038	26,140	121	119	1
Australia(*b*)	**4,529,853**	**14,823,050**	**1,583,277**	**370,085**	**2,177**	**1,061**	**15**
			INDUSTRIAL BUSINESS				
New South Wales	960,132	402,163	35,309	16,370	. .	. .	. .
Victoria . .	756,180	308,467	27,269	12,325	. .	. .	. .
Queensland(*b*) .	338,104	133,618	11,359	5,611	. .	. .	. .
South Australia(*c*)	262,780	94,949	8,114	3,936	. .	. .	. .
Western Australia	169,070	69,961	5,932	2,883	. .	. .	. .
Tasmania . .	55,792	22,045	1,921	886	. .	. .	. .
Australian Capital Territory .	19,048	9,377	840	388	. .	. .	. .
Australia(*b*)	**2,561,106**	**1,040,579**	**90,744**	**42,399**	. .	. .	. .
			SUPERANNUATION BUSINESS				
New South Wales	281,996	527,100	58,852	16,787	101	2,280	680
Victoria . .	122,229	1,795,859	84,583	44,586	606	8,344	3,239
Queensland(*b*) .	89,755	373,487	26,903	11,996	12	90	17
South Australia(*c*)	47,370	302,919	26,843	10,430	36	86	17
Western Australia	41,697	221,828	17,535	7,752	22	441	112
Tasmania . .	16,339	122,765	11,832	3,971	26	55	9
Australian Capital Territory .	122,096	2,189,708	66,671	58,658	125	16,843	4,140
Australia(*b*)	**721,482**	**5,533,666**	**293,219**	**154,180**	**928**	**28,140**	**8,215**

(*a*) Location of register of policies. (*b*) Includes Papua and New Guinea. (*c*) Includes Northern Territory.

LIFE INSURANCE: AUSTRALIA

1950 TO 1968

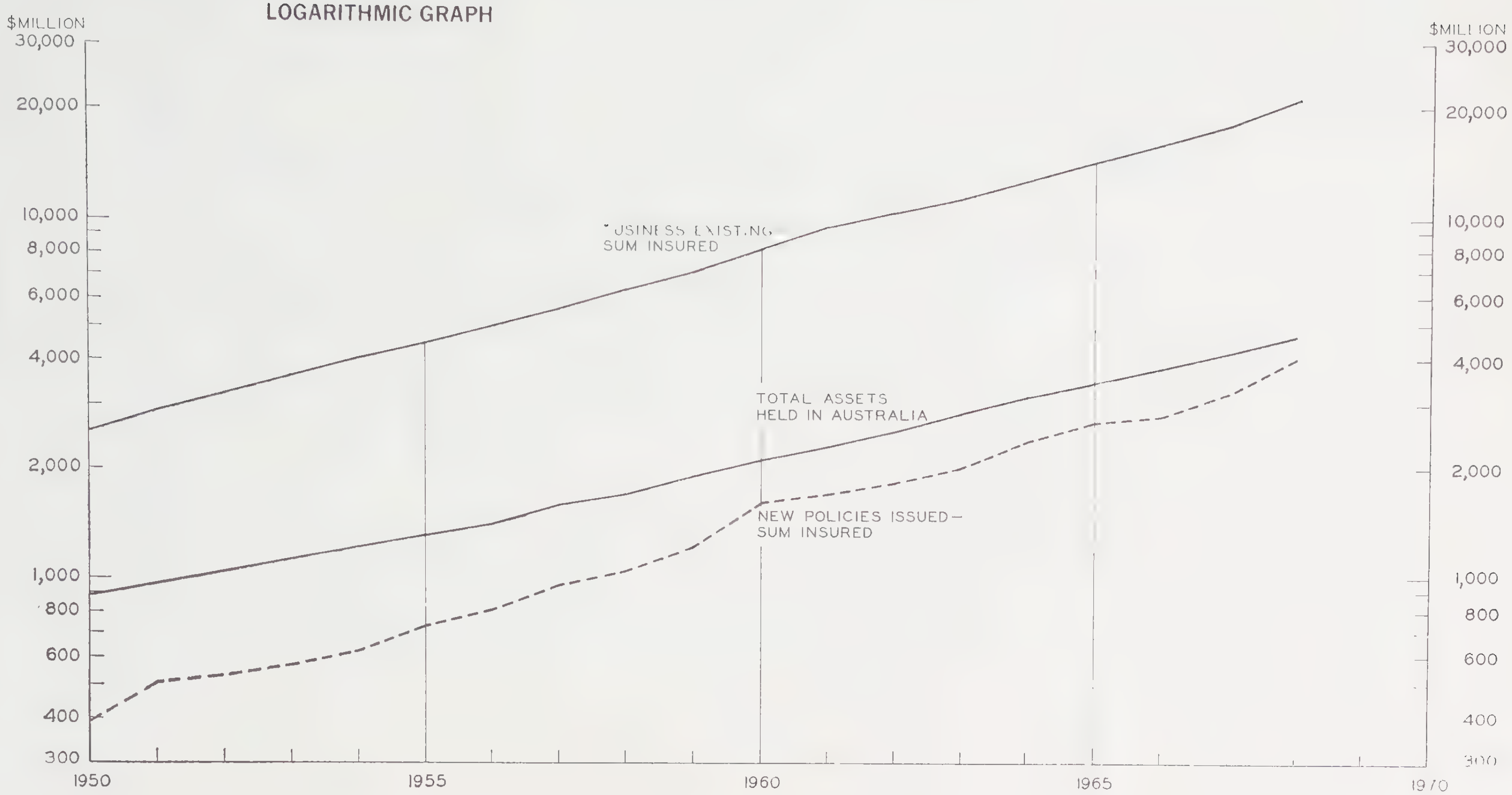


PLATE 33

LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA BY CAUSE OF DISCONTINUANCE OR REDUCTION, 1964 TO 1968(*a*)(*b*)

Year	*Death or maturity*	*Surrender*	*Forfeiture*	*Other*	*Total*
ORDINARY BUSINESS					
Number of policies—					
1964	76,288	91,291	65,390	1,664	234,633
1965	78,611	99,413	62,085	−6,989	233,122
1966	83,267	97,514	66,096	3,912	250,789
1967	89,311	97,985	62,126	−3,283	246,139
1968	92,871	104,415	60,504	849	258,639
Sum insured ($'000)—					
1964	63,938	200,775	228,508	43,352	536,573
1965	69,642	275,498	236,586	−2,066	579,660
1966	77,334	242,970	277,012	54,049	651,365
1967	89,065	272,396	273,629	74,311	709,402
1968	98,712	309,793	315,594	75,594	799,694
INDUSTRIAL BUSINESS					
Number of policies—					
1964	131,755	65,017	31,531	692	228,995
1965	129,636	62,650	31,570	2,224	226,080
1966	147,666	63,121	31,821	1,151	243,759
1967	79,502	62,421	31,602	3,694	177,219
1968	71,634	61,374	34,460	7,108	174,576
Sum insured ($'000)—					
1964	16,507	23,960	28,454	152	69,073
1965	16,959	24,222	31,086	353	72,618
1966	20,090	27,646	34,730	255	82,720
1967	11,838	27,537	37,529	784	77,688
1968	11,483	31,937	41,457	1,437	86,314
SUPERANNUATION BUSINESS					
Number of policies—					
1964	10,241	34,949	1,546	21,683	68,419
1965	10,677	35,231	1,853	12,382	60,143
1966	10,395	34,878	1,485	19,958	66,716
1967	11,221	38,420	1,542	22,136	73,319
1968	11,196	36,881	1,447	17,814	67,338
Sum insured ($'000)—					
1964	17,258	173,784	11,804	97,888	300,734
1965	21,514	222,612	16,427	141,349	401,903
1966	23,752	232,595	14,597	130,651	401,595
1967	29,445	258,790	18,517	127,976	434,727
1968	33,989	341,571	22,172	142,070	539,802

(*a*) Excludes annuities. (*b*) *See* footnote (*a*) on page 505.

Minus sign (−) denotes an increase in existing business due to an excess of transfers from overseas registers to Australian registers, or conversions from other classes of business over discontinuances.

LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1964 TO 1968

($'000)

Year	Ordinary business		Industrial business	Superannuation business		Total, all business combined
	Insurance and endowment premiums	Consideration for annuities	Insurance and endowment premiums	Insurance and endowment premiums	Consideration for annuities	
1964	248,826	647	34,027	88,824	8,515	380,839
1965	273,060	726	35,404	106,964	9,007	425,161
1966	298,246	485	36,800	121,654	9,558	466,745
1967	327,258	606	38,564	142,566	9,495	518,489
1968	371,941	1,132	40,716	165,531	9,893	589,212

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA 1964 TO 1968

($'000)

Year	Claims	Surrenders	Annuities	Cash bonuses	Total
ORDINARY BUSINESS					
1964 . . .	82,774	28,921	865	507	113,067
1965 . . .	91,082	33,347	877	650	125,956
1966 . . .	101,449	36,375	898	817	139,538
1967 . . .	115,631	40,722	931	851	158,134
1968 . . .	128,307	46,235	949	1,280	176,771
INDUSTRIAL BUSINESS					
1964 . . .	19,969	5,146	..	..	25,115
1965 . . .	21,024	5,397	..	..	26,422
1966 . . .	24,870	5,798	..	1	30,669
1967 . . .	14,517	6,185	..	..	20,702
1968 . . .	14,757	6,590	..	1	21,348
SUPERANNUATION BUSINESS					
1964 . . .	20,112	20,532	1,281	902	42,827
1965 . . .	24,884	24,218	1,602	857	51,561
1966 . . .	27,965	27,269	2,037	899	58,171
1967 . . .	34,117	27,649	2,401	1,025	65,193
1968 . . .	40,437	33,854	2,694	1,207	78,192

LIFE INSURANCE: TOTAL REVENUE, 1964 TO 1968

($'000)

Year	Insurance and endowment premiums	Consideration for annuities granted	Net interest dividends and rents	All other revenue	Total revenue	
					Inside Australia	Outside Australia
ORDINARY BUSINESS						
1964	350,532	10,758	155,022	14,648	367,711	163,249
1965	385,424	11,662	172,379	18,095	407,905	179,655
1966	421,072	15,110	193,661	20,705	450,285	200,264
1967	445,631	10,483	206,809	20,042	493,627	189,342
1968	491,446	10,794	225,001	43,543	572,737	198,047
INDUSTRIAL BUSINESS						
1964	38,787	..	17,703	257	49,573	7,174
1965	40,264	..	18,612	305	51,776	7,404
1966	41,789	..	19,818	402	54,436	7,574
1967	42,999	..	20,500	478	57,146	6,831
1968	44,915	..	21,995	1,848	62,196	6,561
SUPERANNUATION BUSINESS						
1964	96,326	9,468	36,249	2,224	132,697	11,570
1965	115,352	10,316	41,761	4,405	158,690	13,143
1966	131,721	11,033	48,219	4,412	179,483	15,904
1967	151,245	10,674	54,940	3,582	207,083	13,359
1968	174,697	11,141	63,180	12,705	247,003	14,721

LIFE INSURANCE: TOTAL EXPENDITURE, 1964 TO 1968

($'000)

Year	Claims and annuities paid	Surrenders	Cash bonuses paid to policy-holders	Commission	Salaries and directors' fees	All other expenditure	Total Expenditure	
							Inside Australia	Outside Australia
ORDINARY BUSINESS								
1964	131,522	40,998	1,197	34,160	23,132	25,988	172,341	84,656
1965	145,087	47,544	1,160	37,649	25,528	35,764	197,348	95,383
1966	161,708	51,273	1,699	41,134	28,452	38,744	218,721	104,287
1967	172,580	56,485	1,624	44,113	30,887	(a)157,475	240,693	222,472
1968	186,897	62,942	2,088	50,812	32,460	110,618	273,542	172,273
INDUSTRIAL BUSINESS								
1964	24,006	5,742	..	5,610	4,769	3,430	37,172	6,385
1965	25,078	6,001	..	5,740	4,782	4,673	39,736	6,536
1966	29,409	6,376	1	6,001	5,026	3,751	43,598	6,965
1967	16,851	6,795	..	6,255	4,844	(a)10,089	34,093	10,741
1968	16,445	7,211	1	6,383	4,804	8,049	35,852	7,041
SUPERANNUATION BUSINESS								
1964	23,525	22,951	973	4,626	4,723	10,847	61,111	6,534
1965	28,945	26,543	932	5,326	5,668	14,288	74,114	7,591
1966	33,116	30,456	985	5,383	6,884	17,271	85,629	8,464
1967	39,255	29,330	1,105	5,888	7,657	(a)30,080	93,401	19,914
1968	46,784	35,767	1,288	6,375	8,304	23,393	114,324	7,587

(a) Includes adjustments which have resulted from Sterling devaluation on 18 November 1967.

LIFE INSURANCE: TOTAL LIABILITIES(*a*), 1968

($ million)

	Life insurance business	*Other classes of business*	*Total liabilities (a)*
Shareholders' capital—			
Authorised	..	65.1	65.1
Less un-issued	..	36.8	36.8
Subscribed capital	..	28.3	28.3
Paid-up—			
In money	..	22.7	22.7
Otherwise than in money	..	4.8	4.8
Total, paid-up capital	..	27.5	27.5
Life insurance statutory funds—			
Ordinary business	4,165.3	..	4,165.3
Industrial business	408.0	..	408.0
Superannuation business	1,094.8	..	1,094.8
Total, statutory funds	5,668.1	..	5,668.1
Funds in respect of other classes of business	..	18.7	18.7
General reserves	60.3	18.2	78.5
Profit and loss account balance	..	2.9	2.9
Total, shareholders' capital, insurance funds and reserves	*5,728.4*	*67.3*	*5,795.7*
Other liabilities—			
Deposits	46.1	11.2	57.3
Staff provident and superannuation funds	0.6	..	0.6
Claims admitted or intimated but not paid	56.8	20.6	77.4
Premiums paid in advance and in suspense	4.8	..	4.8
Sundry creditors	33.5	2.6	36.1
Bank overdraft	35.8	0.6	36.4
Reserves and provisions for taxation	35.3	4.0	39.2
All other liabilities	5.6	10.5	16.1
Grand total	**5,946.8**	**116.8**	**6,063.6**

(*a*) Relates to all business (Australian and overseas) of Australian companies, the life insurance business of the two State Government offices, and the Australian business only of the fourteen overseas companies, operating in Australia.

LIFE INSURANCE(*a*): ASSETS HELD IN AUSTRALIA, 1964 TO 1968

($ million)

	1964	*1965*	*1966*	*1967*	*1968*
Freehold and leasehold property	255.4	320.3	388.2	434.7	501.0
Government and municipal securities	1,043.3	1,107.8	1,253.4	1,395.6	1,536.2
Other investments	804.2	898.2	958.3	1,073.4	1,241.3
Loans on mortgage	848.7	920.2	976.2	1,036.8	1,108.9
Loans on companies' policies	113.5	127.4	141.8	155.1	174.4
Other loans	43.7	44.3	43.8	44.2	54.1
All other assets	109.0	121.3	137.9	153.0	177.2
Total	**3,217.8**	**3,539.5**	**3,899.9**	**4,292.7**	**4,793.1**

(*a*) Includes other classes of business.

LIFE INSURANCE: TOTAL ASSETS(*a*), 1968

($ million)

	Total assets(a)			*Amount of assets held in Australia*		
	Life insurance business	*Other classes of business*	*Total*	*Life insurance business*	*Other classes of business*	*Total*
Fixed assets—						
Freehold and leasehold property, office premises	604.4	8.3	612.7	492.7	8.3	501.0
Furniture, etc.	8.4	0.9	9.3	6.9	0.9	7.8
Total, fixed assets	*612.7*	*9.2*	*622.0*	*499.6*	*9.2*	*508.8*
Loans—						
On mortgage	1,472.2	7.8	1,480.0	1,101.1	7.8	1,108.9
On policies of the company	223.0	..	223.0	174.4	..	174.4
Other loans	50.8	5.1	55.9	49.1	5.1	54.1
Total, loans	*1,745.9*	*12.9*	*1,758.8*	*1,324.6*	*12.9*	*1,337.4*
Investments—						
Government securities—						
Australia	1,208.6	8.8	1,217.4	1,173.9	8.8	1,182.6
Other	294.9	1.6	296.5	2.0	..	2.0
Securities of local and semi-governmental bodies	433.8	1.8	435.7	350.0	1.5	351.5
Other investments	1,469.3	57.5	1,526.8	1,184.2	57.1	1,241.3
Total, investments	*3,406.7*	*69.8*	*3,476.4*	*2,710.1*	*67.3*	*2,777.4*
Cash on deposit, current account and in hand	14.3	6.6	20.9	10.5	6.4	16.9
Other assets(*b*)	167.1	18.3	185.4	134.7	17.9	152.6
Grand total	**5,946.8**	**116.8**	**6,063.6**	**4,679.4**	**113.7**	**4,793.1**

(*a*) Relates to all business (Australian and overseas) of Australian companies, the life insurance business of the two State Government offices, and the Australian business only of the overseas companies, operating in Australia. (*b*) Includes advances of premiums.

LIFE INSURANCE COMPANIES: NEW LOANS PAID OVER(*a*), BY CLASS OF SECURITY AND STATE OR TERRITORY, 1965 TO 1969

($'000)

	1965(b)	*1966(b)*	*1967(b)*	*1968(b)*	*1969*
Class of security—					
Mortgage of real estate	159,991	132,638	136,139	161,651	187,496
Companies' policies	30,772	32,168	34,520	41,818	48,480
Other	3,436	3,032	3,390	6,485	8,047
State or Territory(*c*)—					
New South Wales	84,268	75,309	70,026	91,761	100,722
Victoria	60,914	48,896	56,752	58,754	68,574
Queensland	(*d*)17,018	(*d*)13,513	(*d*)13,816	(*d*)18,523	24,672
South Australia(*e*)	12,313	12,096	12,851	14,477	17,492
Western Australia	13,442	11,162	15,380	19,157	23,965
Tasmania	3,965	4,899	3,768	5,491	6,418
Australian Capital Territory	2,280	1,962	1,457	1,790	2,178
Totals	**(*d*)194,201**	**(*d*)167,838**	**(*d*)174,050**	**(*d*)209,953**	**244,023**

(*a*) Excludes advances of premiums. (*b*) Excludes new loans paid over by the two State Government offices. (*c*) State or Territory of location of mortgage, registration of policy or residence of borrower. (*d*) Includes Papua and New Guinea. (*e*) Includes Northern Territory.

Fire, marine and general insurance

The following statistics, which are in respect of the Australian business of companies operating in Australia and State Government insurance offices, conform to the following definitions and should be interpreted accordingly.

(*a*) *Premiums* represent the full amount receivable in respect of policies issued or renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year. In recent years, as the volume of premiums receivable has been increasing, the figures shown in the tables are greater than the premiums earned by insurers.

(*b*) *Claims* comprise payments made during the year, plus the estimated amount of outstanding claims at the end of the year, less the estimated amount of outstanding claims at the beginning of the year. Salvage and other amounts recoverable have been deducted.

(*c*) *Contributions to fire brigades, commission and agents' charges, and expenses of management* are mainly charges paid during the year.

(*d*) *Taxation* is mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The figures relate to selected items of statistics and are not construable as 'Profit and Loss' statements or 'Revenue Accounts'.

During 1968–69 revenue from premiums amounted to $802.1 million, and that from net interest on investments, etc. to $52.0 million, a total of $854.1 million. Expenditure on claims amounted to $523.3 million, contributions to fire brigades $20.5 million, commission and agents' charges $70.7 million, and expenses of management $132.4 million, a total of $746.9 million.

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS, BY PRINCIPAL CLASS OF RISK, AUSTRALIA, 1964-65 TO 1968-69

($'000)

Class of risk	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
PREMIUMS (LESS RETURNS, REBATES AND BONUSES)					
Fire	81,664	85,167	91,144	97,985	106,001
Householders' comprehensive	33,357	37,233	41,747	47,581	54,595
Loss of profits	8,285	8,923	10,543	12,169	13,686
Hailstone	5,649	3,639	7,805	4,375	7,455
Marine	23,373	24,317	26,473	28,899	149,160
Motor vehicle—					
Compulsory third party	74,970	81,319	90,003	97,882	130,373
Other	151,478	166,106	183,330	193,975	205,088
Workers' compensation(*a*)	114,506	138,412	144,444	142,964	34,052
Personal accident	18,071	19,576	22,908	25,327	28,456
Burglary	7,356	8,237	10,058	11,604	13,583
All other	32,668	36,709	43,053	51,457	59,676
Total	**551,376**	**609,636**	**671,506**	**714,218**	**802,124**
CLAIMS (LESS AMOUNTS RECOVERABLE)					
Fire	30,563	32,650	36,623	44,119	47,000
Householders' comprehensive	8,332	10,286	13,629	15,260	19,546
Loss of profits	2,253	3,154	2,948	3,840	5,355
Hailstone	3,077	3,464	6,113	2,453	2,531
Marine	12,604	14,775	14,715	16,712	106,579
Motor vehicle—					
Compulsory third party	71,470	77,741	94,409	109,683	123,591
Other	113,356	118,292	124,581	133,709	148,750
Workers' compensation(*a*)	83,203	90,544	95,839	100,381	21,321
Personal accident	8,158	9,445	10,343	10,423	11,755
Burglary	5,353	6,486	7,885	7,187	7,454
All other	17,023	18,677	22,904	25,717	29,418
Total	**355,392**	**385,512**	**429,988**	**469,483**	**523,300**

(*a*) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

Export Payments Insurance Corporation

The Export Payments Insurance Corporation was established under the *Export Payments Insurance Corporation Act* 1956 to provide exporters with insurance against risks associated with overseas trade which are not usually acceptable to commercial insurers, and to give certain guarantees in connection with that trade. The Corporation commenced business in 1957. Where the Corporation is not in a position to accept business on its commercial account it may be authorised under its statute to provide insurance facilities on the Commonwealth Government's account in the national interest.

EXPORT PAYMENTS INSURANCE CORPORATION: BUSINESS, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Commercial business—						
Policy holders	No.	509	559	613	692	746
Face value of policies current	$'000	160,424	180,700	238,271	271,076	298,829
Maximum contingent liability	,,	83,164	93,801	123,589	141,108	158,966
Premium income	,,	387	463	598	651	730
Operating costs	,,	233	259	348	388	426
Claims paid (gross)	,,	321	325	446	854	388
Recoveries	,,	72	83	111	591	263
Underwriting reserve	,,	785	955	1,126	1,420	1,897
National interest and warehousing business—						
Policy holders	No.	2	4	4	3	1
Face value of policies current	$'000	2,608	2,661	1,932	2,247	1,208
Maximum contingent liability	,,	2,156	2,206	1,742	1,978	1,087
Overseas investment insurance—						
Policies	No.	..	..	15	29	41
Face value of policies	$'000	..	..	4,699	12,097	19,813
Maximum contingent liability	,,	..	..	4,229	10,887	17,832

PENSION AND SUPERANNUATION SCHEMES

Government, local government and semi-governmental pension and superannuation schemes

The Commonwealth and all State Governments have established pension and superannuation schemes for their employees. These schemes are operated through funds to which both the Governments and their employees make contributions. Employees of local government and semi-governmental authorities are covered either by the Commonwealth and State Government schemes or by a separate scheme of the authority which is operated either through a separately constituted fund or through a life insurance office.

Schemes operated through separately constituted funds

GOVERNMENT, LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH SEPARATELY CONSTITUTED FUNDS, 1967–68

	Cwlth	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Income—	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Contributions—								
Employees	42,844	23,188	21,076	4,286	3,747	3,218	1,763	100,121
Employing authorities	39,589	42,121	21,691	6,026	4,082	3,723	1,959	119,191
Interest, dividends and rent	22,502	24,130	15,669	3,335	3,065	2,040	1,307	72,048
Other income	72	793	7,563	16	196	206	59	8,904
Total income	*105,007*	*90,231*	*65,999*	*13,662*	*11,090*	*9,187*	*5,088*	*300,264*
Expenditure—								
Pensions	44,701	36,366	21,862	3,155	5,894	4,218	2,290	118,484
Lump sum payments—								
On retirement	2,801	3,616	6,684	272	282	456	194	14,306
On resignation(*a*)	5,810	7,255	3,013	631	449	346	399	17,904
Gratuities	1,804	809	42	..	..	..	..	2,655
Other expenditure	11	2,814	1,737	20	329	57	14	4,983
Total expenditure	*55,127*	*50,861*	*33,338*	*4,078*	*6,955*	*5,076*	*2,898*	*158,332*
Assets at end of year—								
Cash—								
Deposits with Treasury	212	7	89	38,313	1,006	305	..	39,932
Other deposits and cash	896	2,242	1,457	196	1,070	382	548	6,790
Commonwealth Government securities	90,209	3,082	13,769	..	12,393	103	5,975	125,530
Local and semi-governmental securities	256,075	292,911	198,108	34,074	20,916	31,376	12,283	845,744
Mortgages—								
Housing	..	..	494	..	25,395	301	5,516	31,706
Other	73,834	28,383	1,084	..	..	264	133	103,697
Loans to building societies	196	28,973	724	1,007	..	475	..	31,374
Company shares, debentures and notes	653	86,652	9,580	..	..	632	35	97,552
Other assets	6,761	10,802	(*b*)73,979	106	611	4,180	438	96,876
Total assets	*428,835*	*453,051*	*299,285*	*73,696*	(*c*)*61,390*	*38,016*	*24,929*	*1,379,203*
Less Sundry creditors, etc.	569	15,947	1.839	119	14	176	194	18,859
Accumulated funds	*428,266*	*437,104*	*297,446*	*73,577*	*61,376*	*37,841*	*24,735*	*1,360,344*
Contributors at end of year—	No.	No.	No.	No.	No.	No.	No.	No.
Males	217,912	126,946	98,088	20,794	23,177	18,803	9,675	547,736
Females		19,023		7,193	2,971		3,154	
Pensioners at end of year—								
Ex-employees—								
Males	17,445	21,243	10,692	1,745	3.200	2,989	1,104	58,418
Females	1,464	2,858	1,835	555	721	422	391	8,246
Widows	10,144	4,173	8,651	664	2,803	2,259	957	29,651
Children	3,257	642	1,290	215	247	200	189	6,040

(*a*) Includes refunds of contributions to continuing members. (*b*) Includes loans to employing authorities. (*c*) Includes assets of the Voluntary Savings Scheme of the State Superannuation Fund valued at $5,651,726 on 30 June 1968.

Schemes operated through life insurance offices

LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES 1963–64 TO 1967–68

		1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
Income—						
Contributions—						
Employees	$'000	4,892	5,275	6,046	6,993	7,534
Employing authorities	$'000	5,856	6,462	7,477	8,525	9,481
Contributors at end of year	No.	56,619	58,708	61,354	69,356	72,381

Parliamentary pension and superannuation schemes

Pension and superannuation schemes have been established for members of the Commonwealth and State Parliaments. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or State Governments contribute.

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1967-68

	Cwlth(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Income—								
Contributions—								
Members	160	77	67	45	27	53	40	468
Government . . .	270	77	103	51	67	50	(*b*)2	618
Interest	79	35	20	68	32	24	3	263
Total income . . .	*509*	*189*	*190*	*165*	*125*	*126*	*45*	*1,350*
Expenditure—								
Pension payments . .	359	121	178	56	57	65	50	886
Other	..	8	..	..	3	12	..	24
Total expenditure . .	*359*	*130*	*178*	*57*	*60*	*77*	*50*	*910*
Assets at end of year—								
Cash—								
Deposits with Treasury .	29	12	8	15	10	7	..	81
Other deposits and cash .	..	..	36	..	..	..	8	44
Commonwealth Government securities	495	92	70	..	223	45	37	962
Local government and semi-governmental securities .	1,145	591	317	831	368	501	4	3,757
Other assets	..	83	..	438	9	7	1	538
Total assets . . .	*1,669*	*778*	*431*	*1,283*	*610*	*561*	*49*	*5,382*
Less Sundry creditors, etc. .	..	14	..	2	..	..	2	17
Accumulated funds . .	*1,669*	*765*	*431*	*1,281*	*610*	*561*	*48*	*5,365*
	No.	No.	No.	No.	No.	No.	No.	No.
Contributors at end of year—								
Males	184	95	106	76	56	80	53	650
Females	4	..	1	1	3	1	1	11
Pensioners at end of year—								
Ex-members	86	45	39	24	16	29	14	253
Widows	(*c*)51	31	39	17	20	25	10	(*c*)193

(*a*) Includes the Ministerial Retiring Allowances Fund. (*b*) State Government proportion of current pensions payable. (*c*) Includes children in receipt of Commonwealth Parliamentary pensions.

Coal and oil-shale mine workers' superannuation schemes

In all States except South Australia superannuation schemes have been established for coal and oil-shale mine workers. These schemes are operated through funds to which mine workers, mine owners and the State Governments contribute.

COAL AND OIL-SHALE MINE WORKERS' SUPERANNUATION SCHEMES(a)
1963-64 TO 1967-68

	1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
	$'000	$'000	$'000	$'000	$'000
Income—					
Contributions	4,533	4,974	5,448	5,522	5,671
Interest, dividends, rent	920	976	1,011	1,091	1,177
Total income	*5,453*	*5,950*	*6,458*	*6,613*	*6,848*
Expenditure—					
Pensions and lump sum payments	4,656	5,221	5,257	5,348	5,471
Other	118	131	126	141	146
Total expenditure	*4,773*	*5,352*	*5,383*	*5,489*	*5,617*
Assets at end of year—					
Local government and semi-governmental securities	17,602	18,146	19,064	20,051	21,530
Other assets	912	988	1,130	1,282	1,084
Total assets	*18,514*	*19,133*	*20,195*	*21,333*	*22,613*
Less Sundry creditors, statutory reserve funds, etc.	6,850	164	152	166	218
Accumulated Funds	*11,664*	*18,969*	*20,043*	*21,167*	*22,395*
	No.	No.	No.	No.	No.
Number of contributors at end of year	15,344	15,344	15,771	15,794	16,116
Number of pensioners at end of year	11,076	11,156	11,879	11,852	11,884

(a) Operating in all States except South Australia.

Private superannuation, pension and retiring allowance schemes

In 1955-56, 1960–61, 1961–62, and 1962–63 sample surveys were conducted of pension and retiring allowance schemes in private businesses subject to pay-roll tax, other than in rural industries, private domestic service, and certain businesses such as accountants, trade associations, consultant engineers, etc. Commonwealth Government airlines and banks were included where they had established their own funds separately from the Commonwealth superannuation funds, but statutory coal miners' pension funds were excluded. Details were asked for three types of pension and retiring allowance schemes. They were (*a*) schemes operated through life insurance offices, (*b*) schemes operated through separately constituted funds, and (*c*) direct payments of pensions and retiring allowances.

The results of the 1955–56 survey are available in *Finance* Bulletin No. 47, Part I—*Public and Private Finance*, and the 1960–61, 1961–62 and 1962–63 survey results were published in *Insurance and Other Private Finance*, Bulletin No. 2 and Year Book No. 51 (pages 898–900). Details of the operations of government and semi-governmental superannuation schemes were published in *Insurance and Other Private Finance*, Bulletins No. 1 and No. 2 for 1961–62 and 1962–63 respectively, and in Part I of the *Finance Bulletin* for years prior to 1961–62. The results of the 1967–68 survey of government and semi-governmental superannuation schemes were published in September 1969 in a mimeographed bulletin. The monthly bulletin of *Life Insurance Statistics* contains some information on the superannuation business of life insurance offices.

In the years 1956–57 to 1958–59, 1963–64 and 1964–65 information was collected from a small number of selected larger funds, and for the years 1955–56 and 1960–61 to 1962–63 the returns for the selected pension schemes were extracted from the sample surveys and tabulated in respect only of the business of their separately constituted funds. In order to improve the coverage of the surveys of selected pension funds, a larger number of funds were surveyed in 1964–65 than in previous surveys of selected funds. The results of the 1964–65 survey were published in September 1966 in a mimeographed bulletin.

Further surveys, relating to the same funds that were included in the 1964–65 survey of selected private pension funds, were made in respect of 1965–66, 1966–67, 1967–68 and 1968–69. The results of the 1968–69 survey are shown below, together with details of the 1964–65, 1965–66, 1966–67 and 1967–68 surveys for comparison. The separately constituted private pension funds included in the 1964–65 survey accounted in 1962–63 for about 72 per cent of the total contributions, 71 per cent of the income, 68 per cent of the expenditure, and 77 per cent of the assets of all the funds covered by the 1962–63 sample survey.

Since the *Survey of Selected Private Pension Funds* for 1968–69 was not a representative sample, it is not known to what extent their share of the whole field has changed since the 1962–63 survey; nor is the pattern of income, expenditure and asset distribution of the large funds included in this survey necessarily representative of the whole field.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: INCOME AND EXPENDITURE, 1964–65 TO 1968–69(*a*)

($ million)

INCOME

Year	*Employees' contributions*	*Employers' contributions*	*Interest on Cwlth local and semi-governmental securities*	*Other interest, dividends and rent*	*Profit from sale or revaluation of assets*	*Other income(b)*	*Total income*
1964–65 . .	21.8	40.7	15.1	21.6	2.8	2.4	104.4
1965–66 . .	23.3	42.6	15.8	25.2	1.4	4.1	112.4
1966–67 . .	26.6	47.7	19.0	27.0	7.6	5.1	133.0
1967–68 . .	29.4	52.7	20.3	30.8	16.1	6.2	155.6
1968–69 . .	32.3	58.1	21.9	36.0	18.7	7.0	174.1

EXPENDITURE

Year	*Pensions paid*			*Lump sum payments*				*Loss on sale or revaluation of assets*	*Other expenditure (c)*	*Total expenditure*
				To former employees						
	Ex-employees	*Widows or children*	*Total*	*On retirement*	*On resignation or dismissal*	*To widows or children*	*Total*			
1964–65 .	10.6	2.0	12.6	7.6	8.4	2.3	18.3	4.2	2.3	37.5
1965–66 .	12.0	2.1	14.1	8.4	9.4	2.3	20.1	2.2	4.1	40.5
1966–67 .	13.6	2.2	15.8	10.3	9.7	2.6	22.6	0.9	7.6	46.9
1967–68 .	15.4	2.6	18.0	13.0	10.7	2.9	26.6	1.1	3.4	49.0
1968–69 .	17.0	3.1	20.1	14.7	12.7	3.4	30.8	1.6	3.4	55.9

(*a*) Years ended 30 June or substituted accounting period. (*b*) Includes receipts from life insurance offices, sub-underwriting commissions, etc. (*c*) Includes administrative expenses payable from funds, payments to life insurance offices, etc.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: ASSETS 1964-65 TO 1968-69(*a*)

($ million)

Year	*Cash in hand or in bank*	*Cwlth Govt securities*	*Local and semi-governmental securities*	*Loans on mortgage*		*Company debentures, notes, and other loans to companies*	*Shares in companies*	*Land and buildings*	*All other assets (b)*	*Total assets*	*Less sundry creditors, etc.*	*Amount of funds in Australia*
				To companies	*Other*							
					AMOUNT							
1964–65	16.7	116.2	176.5	24.3	19.5	167.4	177.5	4.4	9.3	711.8	4.3	707.5
1965–66	17.5	126.0	185.3	30.3	20.8	188.6	198.1	5.0	11.9	783.4	4.1	779.4
1966–67	19.4	137.3	188.9	42.1	22.0	209.4	228.7	6.8	14.9	869.5	4.3	865.1
1967–68	22.2	155.2	195.0	56.2	26.5	230.0	258.0	8.2	21.6	972.9	4.7	968.2
1968–69	23.9	171.3	202.1	70.7	31.1	256.8	299.7	11.4	20.6	1,087.5	6.8	1,080.7
					PERCENTAGE DISTRIBUTION							
1964–65	2.3	16.3	24.8	3.4	2.7	23.5	24.9	0.6	1.3	100.0	0.6	99.4
1965–66	2.2	16.1	23.7	3.9	2.7	24.1	25.3	0.6	1.5	100.0	0.5	99.5
1966–67	2.2	15.8	21.7	4.8	2.5	24.1	26.3	0.8	1.7	100.0	0.5	99.5
1967–68	2.3	15.9	20.0	5.8	2.7	23.6	26.5	1.0	2.2	100.0	0.5	99.5
1968–69	2.2	15.8	18.6	6.5	2.9	23.6	27.5	1.0	1.9	100.0	0.6	99.4

(*a*) Book values at balance dates. (*b*) Includes loans to authorised dealers in the short-term money market and loans to building societies.

FINANCE COMPANIES

Information relating to the lending operations of finance companies in Australia is given in the following tables. A comprehensive account of the scope of these statistics and fuller details of the transactions of finance companies, together with definitions of the various categories of finance agreements and of the items of data given in the tables, are provided in the bulletin *Finance Companies*, 1969 and in the monthly statements *Finance Companies*. For the purpose of these statistics, finance companies are defined as companies which are engaged mainly in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: hire purchase and other instalment credit for retail sales, wholesale hire purchase, other consumer and commercial loans, and factoring. The finance companies covered in these statistics, insofar as they provide instalment credit for retail sales, are also *included* in the statistics of Instalment Credit for Retail Sales (*see* pages 522–4).

In general, companies which are engaged both in financing activities and other activities come within the scope of these statistics, provided that the major portion of their assets consists of financial assets of the types listed above and or a major proportion of their income is derived from such assets. Companies are excluded if the major proportion of their balances outstanding consists of agreements written for the purpose of financing their own sales. Companies which are engaged mainly in financing, in any way, the operations of related companies ('related' as defined in the Companies Act) are also *excluded* from these statistics, as are unincorporated finance companies. Also *excluded* are the following classes of financial and quasi-financial institutions: banks; life insurance companies; fire, marine, and general insurance companies; short-term money market dealers; pastoral finance companies; investment companies; unit trusts; land trusts; mutual funds and management companies for the foregoing trusts and funds; pension and superannuation funds; building and friendly societies; credit unions.

FINANCE COMPANIES: SUMMARY, AUSTRALIA, 1964-65 TO 1968-69

($ million)

		Collections and other liquidations			Balances outstanding at end of period		
Year	Amount financed	Contracts including charges	Contracts excluding charges	All contracts	Contracts including charges	Contracts excluding charges	All contracts (a)
1964–65 . .	1,923.9	1,001.1	1,057.3	2,058.4	1,455.3	364.0	1,819.2
1965–66 . .	1,916.2	1,067.2	1,060.8	2,128.1	1,478.2	431.9	1,910.1
1966–67 . .	2,302.0	1,167.5	1,355.5	2,523.0	1,635.5	472.7	2,108.1
1967–68 . .	2,722.8	1,255.4	1,543.9	2,799.3	1,858.9	581.9	2,440.8
1968–69 . .	3,216.2	1,426.7	1,897.2	3,323.9	2,119.7	684.1	2,803.8

(*a*) Amounts shown in this column are intended to provide a broad overall measure of total balances outstanding. *However, movements in this series may be affected by changes in the proportions of the two components of the series to the total.*

FINANCE COMPANIES: AMOUNT FINANCED, BY TYPE OF AGREEMENT AUSTRALIA, 1964-65 TO 1968-69

($ million)

			Other consumer and commercial loans					
					Commercial loans			
Year	Instalment credit for retail sales	Wholesale hire purchase	Personal loans	Mortgage loans	Call or within 90 days	Other commercial loans	Factoring	Total
1964–65 .	647.3	482.5	63.2	222.7	264.6	154.7	88.8	1,923.9
1965–66 .	612.7	488.2	70.6	222.6	288.4	153.1	80.7	1,916.2
1966–67 .	689.2	719.0	95.5	280.2	323.1	127.0	68.0	2,302.0
1967–68 .	816.6	855.7	116.9	341.9	384.6	132.2	74.9	2,722.8
1968–69 .	923.3	941.3	124.6	445.0	521.5	184.8	75.7	3,216.2

FINANCE COMPANIES: COLLECTIONS AND OTHER LIQUIDATIONS OF BALANCES, BY TYPE OF AGREEMENT, AUSTRALIA, 1964-65 TO 1968-69

($ million)

	Contracts including charges			Contracts excluding charges					
					Other consumer and commercial loans				
Year	Instalment credit for retail sales	Other consumer and commercial loans	Total	Wholesale hire purchase	Call or within 90 days	Other	Factoring	Total	All contracts
1964–65 . .	732.0	269.1	1,001.1	485.9	256.8	211.6	102.9	1,057.3	2,058.4
1965–66 . .	778.9	288.3	1,067.2	474.9	271.9	218.5	95.5	1,060.8	2,128.1
1966–67 . .	854.9	312.5	1,167.5	704.6	340.9	233.9	76.2	1,355.5	2,523.0
1967–68 . .	913.6	341.8	1,255.4	836.6	362.4	261.7	83.3	1,543.9	2,799.3
1968–69 . .	1,026.4	400.3	1,426.7	933.1	527.7	348.5	87.9	1,897.2	3,323.9

FINANCE COMPANIES: BALANCES OUTSTANDING, BY TYPE OF AGREEMENT AUSTRALIA, 1964-65 TO 1968-69

($ million)

	Contracts including charges			Contracts excluding charges					
					Other consumer and commercial loans				
End of year	Instalment credit for retail sales	Other consumer and commercial loans	Total	Wholesale hire purchase	Call or within 90 days	Other	Factoring	Total	All contracts (a)
1964–65 . .	977.5	477.8	1,455.3	64.1	40.4	233.8	25.6	364.0	1,819.2
1965–66 . .	990.1	488.1	1,478.2	78.4	65.1	266.6	21.8	431.9	1,910.1
1966–67 . .	1,087.5	548.0	1,635.5	100.8	49.3	300.9	21.7	472.7	2,108.1
1967–68 . .	1,222.5	636.3	1,858.9	127.5	69.9	360.9	23.6	581.9	2,440.8
1968–69 . .	1,381.8	737.8	2,119.7	145.2	60.5	455.7	22.6	684.1	2,803.8

(*a*) Amounts shown in this column are intended to provide a broad overall measure of total balances outstanding. *However, movements in this series may be affected by changes in the proportions of the two components of the series to the total.*

FINANCE COMPANIES: LOANS TO RELATED NON-FINANCE COMPANIES, BALANCES OUTSTANDING, AUSTRALIA, 1965-66 TO 1968-69

($ million)

End of year—	*Balances outstanding*
1965–66	14.4
1966–67	14.6
1967–68	18.6
1968–69	17.3

FINANCE COMPANIES: TRANSACTIONS IN BILLS OF EXCHANGE AUSTRALIA, 1966-67 TO 1968-69

($ million)

Year	*Amounts paid for bills acquired during period*	*Amounts received for bills disposed of during period*	*Balances outstanding at end of period*
1966–67	38.7	36.9	4.3
1967–68	111.1	99.1	16.6
1968–69	117.2	118.5	16.4

FINANCE COMPANIES: BUSINESS EQUIPMENT AND PLANT ON LEASE, INITIAL CAPITAL COST AND BALANCES OUTSTANDING, AUSTRALIA 1964-65 TO 1968-69

($ million)

	Initial capital cost of goods newly leased during period	*Balances outstanding at end of period*
1964–65	(*a*)	70.4
1965–66	(*a*)	89.4
1966–67	77.6	128.6
1967–68	125.3	190.4
1968–69	148.7	253.6

(*a*) Not available.

FINANCE COMPANIES: INSTALMENT CREDIT FOR RETAIL SALES AMOUNT FINANCED, COLLECTIONS AND OTHER LIQUIDATIONS, AND BALANCES OUTSTANDING, AUSTRALIA, 1964-65 TO 1968-69

($ million)

Year	*Amount financed*					*Collections and other liquidations*			*Balances out-standing at end of period*
	New motor vehicles	*Used motor vehicles*	*House-hold and personal goods*	*Plant and machinery*	*Total*	*Cash col-lections*	*Other liquida-tions*	*Total*	
1964–65	266.5	270.4	71.4	39.1	647.3	698.1	33.9	732.0	977.5
1965–66	249.3	250.1	70.2	43.0	612.7	747.0	32.0	778.9	990.1
1966–67	254.9	262.1	120.9	51.3	689.2	823.4	31.5	854.9	1,087.5
1967–68	318.4	302.2	137.0	59.0	816.6	883.6	29.9	913.6	1,222.5
1968–69	352.7	350.2	142.6	77.9	923.3	988.6	37.9	1,026.4	1,381.8

INSTALMENT CREDIT FOR RETAIL SALES

Information relating to instalment credit for retail sales in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Insurance and Other Private Finance* and in the monthly and quarterly statements relating to instalment credit for retail sales issued by this Bureau (*see* beginning of chapter).

The statistics cover operations of all types of instalment credit schemes which relate primarily to the financing of retail sales of goods, whether the credit is advanced by a retail business or by a non-retail finance business. In general, the term 'instalment credit' is defined as relating to schemes in which repayment is made by regular pre-determined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to the financing of retail sales of goods. In these statistics the term 'retail sales' relates not only to retail sales by retail establishments coming within the scope of the Censuses of Retail Establishments conducted periodically by this Bureau, but includes also other sales of goods to final purchasers (e.g. plant and machinery).

Figures for amounts financed *exclude* interest, hiring charges, insurance, etc. Figures for balances outstanding and collections *include* interest, hiring charges, insurance. etc. Details are not available of these charges or of other items (e.g. rebates allowed for early payments, late payment charges, bad debts written off) which affect the reconciliation of the three main instalment credit series—amount financed, collections, and balances outstanding.

Statistics of amounts financed are classified by type of goods, defined as follows: *motor vehicles* (new and used separately)—motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc.; *plant and machinery*—farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc.: *household and personal goods*—furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, television, musical instruments, bicycles, motor mowers, clothing, etc.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF BUSINESS: AMOUNT FINANCED, BY COMMODITY GROUP, COLLECTIONS, AND BALANCES OUTSTANDING, AUSTRALIA, 1964-65 TO 1968-69

($ million)

	Amount financed during year						
	Motor vehicles, etc.						
Year	*New*	*Used*	*Plant and machinery*	*House-hold and personal goods*	*Total*	*Collec-tions during year*	*Balances out-standing at end of year*
Retail businesses—							
1964–65	11.1	10.8	2.6	287.2	311.8	379.9	395.6
1965–66	9.7	9.5	3.2	259.4	281.8	355.4	360.3
1966–67	11.3	8.6	3.7	254.0	277.6	338.5	339.4
1967–68	12.1	8.8	3.4	265.4	289.8	335.9	338.4
1968–69	13.5	11.3	3.8	272.8	301.5	348.3	345.0
Non-retail finance businesses—							
1964–65	288.7	272.2	65.4	87.0	713.3	766.9	1,055.0
1965–66	271.3	252.3	69.6	83.5	676.7	822.1	1,074.0
1966–67	274.5	267.6	83.5	84.4	710.0	854.1	1,103.8
1967–68	339.9	308.2	93.6	87.8	829.4	906.5	1,238.0
1968–69	373.3	356.8	114.2	88.1	932.3	1,013.9	1,389.8
All businesses—							
1964–65	299.9	283.0	68.0	374.2	1,025.0	1,146.8	1,450.5
1965–66	281.0	261.8	72.8	342.9	958.6	1,177.5	1,434.3
1966–67	285.8	276.1	87.3	338.4	987.5	1,192.6	1,443.2
1967–68	352.0	317.0	97.0	353.2	1,119.2	1,242.4	1,576.4
1968–69	386.8	368.1	118.1	360.9	1,233.9	1,362.1	1,734.7

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF CREDIT AMOUNT FINANCED, BY COMMODITY GROUP, AND BALANCES OUTSTANDING, AUSTRALIA, 1964-65 TO 1968-69

($ million)

	Amount financed during year				
Year	*Motor vehicles, etc.*	*Plant and machinery*	*Household and personal goods*	*Total*	*Balances outstanding at end of year*
Hire purchase—					
1964–65	459.7	64.6	163.5	687.7	1,078.7
1965–66	410.8	67.2	134.3	612.2	1,027.6
1966–67	405.9	80.1	128.8	614.8	994.3
1967–68	431.2	84.3	133.3	648.7	1,027.0
1968–69	463.6	97.0	133.9	694.6	1,080.8
Other instalment credit—					
1964–65	123.2	3.4	210.7	337.3	371.9
1965–66	132.1	5.6	208.7	346.3	406.7
1966–67	156.0	7.2	209.6	372.8	448.8
1967–68	237.8	12.7	219.9	470.5	549.4
1968–69	291.3	21.1	227.0	539.3	654.0
Total instalment credit—					
1964–65	582.9	68.0	374.2	1,025.0	1,450.5
1965–66	542.8	72.8	342.9	958.6	1,434.3
1966–67	561.9	87.3	338.4	987.5	1,443.2
1967–68	669.0	97.0	353.2	1,119.2	1,576.4
1968–69	754.9	118.1	360.9	1,233.9	1,734.7

INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED BY TYPE OF CREDIT AND COMMODITY GROUP, STATES, 1968-69

($ million)

Commodity group	*N.S.W. (a)*	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Aust.*
Hire purchase—							
Motor vehicles, tractors, etc. .	266.2	59.0	40.4	17.7	60.2	20.1	463.6
Plant and machinery . .	43.7	20.0	12.1	4.8	12.6	3.9	97.0
Household and personal goods	36.8	42.9	25.4	9.6	14.0	5.2	133.9
Total hire purchase . .	*346.7*	*121.9*	*77.9*	*32.1*	*86.8*	*29.2*	*694.6*
Other instalment credit—							
Motor vehicles, tractors, etc. .	13.1	129.4	67.9	56.5	21.7	2.7	291.3
Plant and machinery . .	1.7	3.4	8.5	2.7	4.7	0.1	21.1
Household and personal goods	117.0	51.6	23.8	18.6	11.4	4.6	227.0
Total other instalment credit	*131.8*	*184.3*	*100.3*	*77.7*	*37.8*	*7.4*	*539.3*
Total instalment credit—							
Motor vehicles, tractors, etc. .	279.3	188.4	108.3	74.2	81.9	22.8	754.9
Plant and machinery . .	45.4	23.3	20.6	7.4	17.3	4.0	118.1
Household and personal goods	153.8	94.5	49.2	28.2	25.4	9.8	360.9
Total instalment credit .	**478.5**	**306.3**	**178.1**	**109.8**	**124.6**	**36.5**	**1,233.9**

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

NEW HIRE PURCHASE AGREEMENTS: AVERAGE VALUE AND AMOUNT AND PROPORTION FINANCED, BY COMMODITY GROUP, AUSTRALIA, 1968-69

Commodity group	*Average value of goods purchased per agreement*	*Average amount financed per agreement*	*Average proportion financed*
	$	$	Per cent
Motor vehicles, tractors, etc.	1,838	1,254	68
Plant and machinery	3,290	2,235	68
Household and personal goods	202	164	81
All groups	**806**	**565**	**70**

INSTALMENT CREDIT FOR RETAIL SALES: BALANCES OUTSTANDING BY TYPE OF CREDIT, STATES, 30 JUNE 1965 TO 1969

($ million)

30 June—	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Aust.*
Hire purchase—							
1965	469.4	215.2	172.4	91.9	93.2	36.5	1,078.7
1966	452.5	189.2	164.7	84.5	98.7	37.9	1,027.6
1967	446.1	174.7	157.5	75.8	101.1	39.2	994.3
1968	478.4	173.0	147.8	65.6	119.8	42.3	1,027.0
1969	526.4	181.9	137.4	58.2	133.1	43.7	1,080.8
Other instalment credit—							
1965	103.8	139.3	58.0	46.2	16.7	7.7	371.9
1966	107.3	155.5	67.0	52.8	16.8	7.2	406.7
1967	116.3	166.7	76.8	57.0	25.6	6.7	448.8
1968	131.2	200.7	105.0	72.4	32.7	7.2	549.4
1969	146.8	237.4	128.0	95.4	38.0	8.4	654.0
Total instalment credit—							
1965	573.3	354.5	230.5	138.1	109.9	44.3	1,450.5
1966	559.8	344.7	231.7	137.3	115.5	45.2	1,434.3
1967	562.4	341.4	234.1	132.8	126.7	45.8	1,443.2
1968	609.7	373.7	252.8	138.1	152.6	49.5	1,576.4
1969	673.1	419.3	265.5	153.6	171.0	52.2	1,734.7

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

PASTORAL FINANCE COMPANIES

PASTORAL FINANCE COMPANIES: RURAL ADVANCES AMOUNTS OUTSTANDING(*a*), JUNE 1965 TO 1969

(*Source:* Reserve Bank of Australia)

($ million)

End of June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A. and Tas.*	*Total*
1965 . . .	66.6	43.9	58.5	42.8	47.1	258.9
1966 . . .	62.4	40.9	55.6	44.3	46.6	249.9
1967 . . .	68.4	50.2	58.8	50.1	57.9	285.5
1968 . . .	72.2	54.8	63.5	61.0	62.9	314.4
1969 . . .	77.6	65.9	62.6	70.2	61.5	337.7

(*a*) Compiled from returns supplied to the Reserve Bank by major pastoral finance companies. Advances are classified according to the location of the branch holding the advance, which in some cases may differ from the State of residence of the borrower.

PASTORAL FINANCE COMPANIES: LIABILITIES AND ASSETS(*a*), JUNE 1965 TO 1969

(*Source:* Reserve Bank of Australia)

($ million)

LIABILITIES

End of June—	*Balances due to banks*	*Clients' credit balances*	*Debentures, notes and deposits*		*Other outside liabilities*	*Share-holders' funds*	*Overseas liabilities*	*Total liabili-ties/ assets*
			Maturing within twelve months	*Other*				
1965 . .	74.5	42.9	19.9	22.5	86.6	138.0	114.1	498.6
1966 . .	57.3	39.1	27.3	24.1	95.6	145.7	128.4	517.5
1967 . .	68.5	41.8	39.3	29.8	94.8	154.2	131.9	560.2
1968 . .	94.4	34.4	51.9	40.0	89.9	162.5	133.2	606.1
1969 . .	86.7	37.6	52.7	46.5	107.2	173.4	138.4	642.4

ASSETS

End of June—	*Cash and deposits with banks*	*Loans to author-ised money market dealers*	*Other short-term assets (b)*	*Cwlth Govt securi-ities*	*Advances and sundry debtors*		*Stocks*	*Fixed assets*	*Other assets*
					Rural	*Other*			
1965 . .	5.4	1.1	1.0	14.0	258.9	24.3	35.2	133.5	25.3
1966 . .	6.3	0.9	4.5	29.0	249.9	28.0	34.9	140.2	23.8
1967 . .	7.6	0.4	1.9	33.3	285.5	25.7	37.8	145.8	22.3
1968 . .	8.6	1.7	1.3	35.7	314.4	29.9	40.4	148.4	25.7
1969 . .	11.1	1.6	6.9	35.7	337.7	29.7	40.4	151.6	27.7

(*a*) Compiled from returns supplied to the Reserve Bank by major pastoral finance companies. (*b*) Excludes Commonwealth Government securities.

RURAL DEBT

Major sources of credit for rural purposes include banks, Commonwealth and State government financial agencies, pastoral finance companies, and life insurance companies. The following table shows the estimated rural debt to these lenders.

ESTIMATED RURAL DEBT TO SPECIFIED LENDERS, 30 JUNE 1965 TO 1969

(*Source:* Reserve Bank of Australia)

($ million)

	30 June—				
Lender	*1965*	*1966*	*1967*	*1968*	*1969*
Major trading banks	584	650	751	918	939
Ex-service settlement	104	99	92	88	83
Other government, including State banks and State savings banks	218	245	274	315	335
Pastoral finance companies	259	250	285	314	338
Commonwealth Development Bank	72	92	120	143	162
Life insurance companies	65	75	81	97	115
Total	**1,302**	**1,411**	**1,603**	**1,875**	**1,972**

In addition, credit is supplied to the rural sector by finance companies, merchants, co-operative producer organisations, and by private lenders and investors, the most noteworthy of these last-mentioned sources involving family arrangements and property vendors. No data are currently available on the extent of the outstanding debt by the rural sector to these sources.

NEW CAPITAL RAISINGS BY COMPANIES IN AUSTRALIA

Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Insurance and Other Private Finance* and in quarterly bulletins dealing with capital raisings (*see* beginning of chapter).

The statistics (the collection of which commenced in July 1954) relate to capital raised by companies through issues of shares, and in the case of companies listed on stock exchanges, through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft or bank loans, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included. Totally unsecured loans are included in the case of listed companies, but are excluded in the case of unlisted companies.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or the Australian territories and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia, including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included in the statistics of share issues. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits, include, in addition to capital raised by companies incorporated in Australia (including subsidiaries of overseas companies), capital raised in this way from Australian sources by overseas public companies through their Australian offices. Where an issue is made at the same time on Australian and overseas markets, that part of the issue which is taken up through overseas brokers is excluded.

The following are explanatory notes relating to some of the items shown in the tables.

New money. This is the net amount of cash transferred from the investing public to the companies. For this purpose the 'investing public' includes banks and life insurance companies (except when subscribing to issues by associated companies) and government and private superannuation funds, but excludes other government agencies. Subscriptions by associated companies, whether local or overseas, are excluded. In the tables which follow the amount of new money is obtained by deducting from the total cash raised the 'amount not involving new money'.

Amount not involving new money. This amount includes cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the 'investing public'. Also included are amounts which, although subscribed by the 'investing public' (i.e. subscribers other than 'associated companies'), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc., in associated and subsidiary companies. The funds used in this way are thus returned to another section of the 'investing public' and do not represent a *net* transfer of cash from the 'investing public' to the companies. (Besides these purchases of existing shares, etc., from individuals, purchases of existing shares, etc., from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.)

LISTED COMPANIES(*a*): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES DEBENTURES, OR REGISTERED NOTES, ETC.(*b*), OR ACCEPTING DEPOSITS(*c*), 1964-65 TO 1968-69

($ million)

	Share capital						Debentures, registered notes and deposits		
Year	Value of issues commenced	Non-cash issues commenced (*d*)	Cash issues commenced	Cash raised during period (*e*)	Amount not involving new money	New money	Total amount raised (*f*)	Amount not involving new money (*f*)	New money
1964–65 . .	394.4	136.6	257.9	209.2	62.3	146.9	1,074.5	906.0	168.5
1965–66 . .	292.1	85.6	206.3	232.6	61.5	171.3	990.4	840.5	149.9
1966–67 . .	313.7	148.0	165.8	151.6	39.2	112.4	1,099.3	898.9	200.4
1967–68 . .	280.7	79.3	201.5	169.8	47.2	122.6	1,394.5	1,045.8	348.7
1968–69 . .	926.4	212.1	714.3	485.3	144.0	341.3	1,873.1	1,425.8	447.4

(*a*) Includes companies incorporated in the Australian Territories. (*b*) Includes convertible notes. (*c*) Deposits accepted by banks, life insurance companies, pastoral companies and building societies, and loans to authorised dealers in the short term money market are not included. (*d*) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (*e*) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years. (*f*) Includes conversions, renewals, etc.

UNLISTED COMPANIES(*a*): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES' ENTIRE ASSETS, 1964-65 TO 1968-69

($ million)

	Share capital						Loans secured by charges over the companies' entire assets		
Year	Value of issues commenced	Non-cash issues commenced (*b*)	Cash issues commenced	Cash raised during period (*c*)	Amount not involving new money	New money	Total amount raised (*d*)	Amount not involving new money (*d*)	New money
1964–65 . .	563.5	303.1	260.5	233.9	182.2	51.7	65.3	40.1	25.2
1965–66 . .	455.3	260.1	195.4	216.3	165.5	50.8	63.8	40.7	23.1
1966–67 . .	392.7	178.8	214.0	150.6	110.2	40.4	74.2	37.9	36.4
1967–68 . .	400.1	190.9	209.1	209.2	158.4	50.8	66.5	48.2	18.1
1968–69 . .	661.3	321.3	342.1	265.9	199.3	66.6	86.0	53.5	32.4

(*a*) Includes companies incorporated in the Northern Territory. (*b*) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (*c*) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years. (*d*) Includes conversions, renewals, etc.

LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED, BY INDUSTRY GROUP, 1964–65 TO 1968–69

($ million)

Year	*Companies listed on stock exchanges*			*Companies not listed on stock exchanges*			
	Share capital(a)	*Debentures registered notes and deposits(b)*	*Total*	*Share capital(a)*	*Secured loans(c)*	*Total*	*Grand total*
Manufacturing—							
1964–65 . . .	78.3	27.5	105.8	12.4	19.8	32.2	138.0
1965–66 . . .	94.5	79.9	174.4	13.6	12.8	26.4	200.8
1966–67 . . .	28.3	101.7	130.0	8.8	15.7	24.5	154.5
1967–68 . . .	24.4	82.4	106.8	12.7	7.8	20.5	127.3
1968–69 . . .	96.6	67.8	164.4	14.0	6.3	20.3	184.7
Finance and property(*b*)—							
1964–65 . . .	12.8	119.8	132.6	11.4	1.8	13.2	145.8
1965–66 . . .	25.3	63.1	88.4	9.4	4.6	14.0	102.4
1966–67 . . .	4.7	94.9	99.6	6.4	7.4	13.8	113.4
1967–68 . . .	15.6	255.4	271.0	8.1	6.2	14.3	285.3
1968–69 . . .	45.9	338.1	384.0	18.7	6.4	25.1	409.1
Commerce—							
1964–65 . . .	23.0	4.8	27.8	9.6	0.6	10.2	38.0
1965–66 . . .	25.0	(*d*)−4.0	21.0	10.1	1.6	11.7	32.7
1966–67 . . .	32.1	(*d*)−0.7	31.4	8.5	0.7	9.2	40.6
1967–68 . . .	7.9	4.3	12.2	8.9	0.8	9.7	21.9
1968–69 . . .	18.4	29.2	47.6	9.7	2.3	12.0	59.6
Other industries—							
1964–65 . . .	32.7	16.5	49.2	15.1	3.1	18.2	67.4
1965–66 . . .	26.5	11.0	37.5	14.5	4.1	18.6	56.1
1966–67 . . .	47.2	4.6	51.8	13.7	12.7	26.4	78.2
1967–68 . . .	75.0	6.6	81.6	17.6	3.4	21.0	102.6
1968–69 . . .	180.4	12.2	192.6	20.6	17.2	37.8	230.4
All industries—				(*e*)		(*e*)	(*e*)
1964–65 . . .	146.9	168.5	315.4	51.7	25.2	76.9	392.3
1965–66 . . .	171.3	149.9	321.2	50.8	23.1	73.9	395.1
1966–67 . . .	112.4	200.4	312.8	40.4	36.4	76.8	389.6
1967–68 . . .	122.6	348.7	471.3	50.8	18.1	68.9	540.2
1968–69 . . .	341.3	447.4	788.7	66.6	32.4	99.0	887.7

(*a*) Includes preference shares. (*b*) Excludes deposits accepted by banks, insurance companies, pastoral companies and building societies, and loans to authorised dealers in the short-term money market. (*c*) Includes only loans which are secured by charges over the companies' entire assets. (*d*) Excess of repayments over receipts of new money. (*e*) Small share issues of less than $2,000 for which returns have not been collected have not been included in the industrial classification but are included in All industries.

SHORT-TERM MONEY MARKET

For some years prior to 1959 leading stockbrokers had been actively engaged in the acceptance of short-term funds against the security of government securities, but their operations were limited by the absence of suitable short-term securities and their liquidity requirements. In February 1959 the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorised dealers in the short-term money market.

The form of organisation consists of nine companies whose functions are:

(i) to accept loans overnight, at call or for fixed periods, in minimum amounts of $50,000 and to invest these funds in money market securities.

(ii) to engage as traders in the buying and selling of money market securities.

The types of securities that may be used as money market securities are subject to the approval of the Reserve Bank. At present they comprise Commonwealth Government securities maturing within five years, commercial bills of any maturity that have been accepted or endorsed by a trading bank, bank's certificates of deposit maturing within five years, and non-bank commercial bills maturing within 180 days.

Dealers are required to have a minimum paid up capital of $400,000 and there is a limit on the maximum ratio of loans to shareholders' funds. Dealers are required to lodge with the Reserve Bank 'margins' in the form of money market securities as general backing for their operations. These 'margins' are minimum proportions, at market values, of a dealer's holdings of money market securities. In April 1969 the Reserve Bank announced that the requirement to lodge 'margins' would be withdrawn from a date to be announced.

Under the lender of last resort arrangements dealers may borrow from the Reserve Bank for a minimum of seven days and at a high rate of interest against the lodgment of Commonwealth Government securities.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORISED DEALERS, JUNE 1965 TO 1969

(*Source:* Reserve Bank of Australia)

Month	*Liabilities to clients*			*Holdings of Cwlth Govt securities (at face value)*	*Commercial bills*	*Interest rates on loans accepted during month*				*Weighted average interest rate on loans outstanding (a)*
	All cheque-paying banks	*Other clients*	*Total*			*At call*		*For fixed periods*		
						Minimum	*Maximum*	*Minimum*	*Maximum*	
	Average of weekly figures—($ million)					*per cent per annum*	*per cent per annum*	*per cent per annum*	*per cent per annum*	*per cent per annum*
June—										
1965	93.7	219.0	312.7	343.4	7.6	1.50	6.00	2.00	5.53	4.16
1966	74.8	275.4	350.2	373.3	25.2	3.00	6.10	4.25	5.80	4.73
1967	88.8	367.6	456.4	467.7	32.8	2.00	6.50	3.00	5.50	4.46
1968	87.7	406.5	494.2	491.3	35.7	3.00	6.75	3.75	5.40	4.29
1969	94.9	398.7	493.6	505.6	28.9	2.00	7.50	4.00	6.75	4.59

(*a*) Average of weekly figures.

SHORT-TERM MONEY MARKET: AUTHORISED DEALERS LIABILITIES BY TYPE OF CLIENT(*a*), 30 JUNE 1966 TO 1969

(*Source:* Reserve Bank of Australia)

($ million)

Client	*30 June—*			
	1966	*1967*	*1968*	*1969*
All cheque-paying banks	91.1	121.5	117.6	90.0
Savings banks	35.6	56.2	26.5	36.0
Insurance offices	12.5	10.8	20.1	32.4
Superannuation, pension and provident funds	6.2	11.7	4.6	8.9
Hire purchase and other instalment credit companies	6.3	5.9	2.8	2.4
Companies, n.e.i.	95.1	120.2	156.8	140.3
Commonwealth and State Governments	30.4	57.4	78.1	62.3
Local government and semi-governmental authorities, n.e.i.	51.0	56.5	72.2	75.3
All other lenders(*b*)	18.4	33.6	20.6	45.9
Total	**346.5**	**473.7**	**499.3**	**493.4**

(*a*) Compiled from returns supplied by authorised dealers in the short-term money market. Liabilities to Reserve Bank as lender of last resort are excluded. (*b*) Includes marketing boards and trustee companies.

UNIT TRUSTS, LAND TRUSTS AND MUTUAL FUNDS

Statistics of operations of unit trusts, land trusts and mutual funds for the years 1964–65 to 1968–69 are shown below. Details of superannuation funds conducted by unit trust management companies are not included in these tables.

TRUSTS AND FUNDS: TOTAL MARKET VALUE AND TRANSACTIONS YEARS 1964-65 TO 1968-69

($ million)

Year	*Total market value at end of period(a)*	*Cash transactions—trust units and fund shares*		*Purchases and sales of investments(b)*	
		Total amount received(c)	*Total amount paid(d)*	*Purchases (e)*	*Sales (f)*
1964–65	222.2	36.0	22.6	31.3	18.8
1965–66	225.2	25.2	19.7	23.9	20.0
1966–67	224.4	20.2	21.1	20.5	17.7
1967–68	267.5	30.9	35.1	33.0	40.8
1968–69	276.6	41.6	42.0	48.2	54.6

(*a*) Includes value of land trusts at valuation. (*b*) Commonwealth Government, local and semi-governmental authority securities, shares, debentures, unsecured notes, loans, deposits on term or notice of three months or longer, land and buildings, etc. (*c*) For trust units and fund shares issued. Includes re-issues and new issues. Includes fees and expenses. (*d*) For trust units and fund shares repurchased. Includes those units and fund shares intended for re-issue. (*e*) Payments for assets acquired during period. Includes brokerage and stamp duty. (*f*) Receipts for assets sold or redeemed during period. Excludes brokerage and stamp duty.

TRUSTS AND FUNDS: ANALYSIS OF PURCHASES AND SALES OF INVESTMENTS, 1964-65 TO 1968-69

($ million)

Year	*Shares (incl. preference shares)*	*Debentures, unsecured notes, deposits (a)*	*Cwlth Govt local and semi-govt authority securities*	*Other(b)*	*Total*
Purchases—					
1964–65	19.3	6.1	0.1	6.0	31.3
1965–66	12.6	3.8	. .	7.4	23.9
1966–67	7.6	5.3	. .	7.6	20.5
1967–68	13.2	7.3	. .	12.5	33.0
1968–69	17.0	11.6	0.1	19.7	48.2
Sales—					
1964–65	13.7	2.7	0.1	2.3	18.8
1965–66	14.1	2.7	0.1	3.1	20.0
1966–67	13.7	3.0	0.1	0.8	17.7
1967–68	34.7	3.8	. .	2.3	40.8
1968–69	44.0	5.5	. .	5.1	54.6

(*a*) Excludes cash on hand and at bank, loans to authorised dealers in the short-term money market, and other deposits under three months' term or notice. (*b*) Includes land and buildings, mortgages on land and buildings, and other investments.

REGISTERED BUILDING SOCIETIES

Permanent, Starr-Bowkett and Terminating building societies

REGISTERED BUILDING SOCIETIES: SUMMARY, STATES, 1967–68 AND TOTAL, 1966–67

	1967–68(a)							*1966–67 (a)*
	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*	*Total*
Societies making returns—								
Permanent	67	35	33	5	14	4	159	143
Starr-Bowkett	91	2	4	21	1	. .	119	120
Terminating(*b*)	2,405	1,120	475	. .	204	69	4,272	3,940
Total	*2,563*	*1,157*	*512*	*27*	*218*	*73*	*4,550*	*4,203*
Shareholders	260,000	65,664	52,795	22,458	47,530	10,434	458,881	402,557
Borrowers	n.a.	63,178	27,189	6,941	16,893	6,658	n.a.	n.a.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Administrative expenses	8,869	2,255	799	223	685	230	13,061	11,153
Loans paid over	142,084	49,456	29,369	5,121	24,436	9,553	260,018	194,652
Liabilities—								
Investing members' funds	273,571	19,170	50,635	12,388	27,427	11,615	394,807	291,765
Borrowing members' funds	110,967	55,728	8,631	. .	2,024	892	178,241	175,243
Deposits	7,609	29,306	1,724	2,516	18,219	13,627	73,001	55,529
Loans due to governments	108,664	89,320	23,460	8,709	22,027	5,067	257,247	225,187
Other liabilities	254,077	131,181	34,147	335	17,877	3,910	441,527	417,720
Total liabilities	*754,889*	*324,706*	*118,596*	*23,947*	*87,575*	*35,111*	*1,344,823*	*1,165,445*
Assets—								
Advances on mortgages(*c*)	704,405	315,302	111,825	22,388	79,278	33,096	1,266,294	1,111,355
Other assets	50 483	9,404	6,771	1,560	8,297	2,014	78,529	54,091
Total assets	*754,889*	*324,706*	*118,596*	*23,947*	*87,575*	*35,111*	*1,344,823*	*1,165,445*

(*a*) At various balance dates within the financial year shown. (*b*) Co-operative housing and other terminating societies. (*c*) Includes advances on mortgages of terminating societies which are mainly on a gross basis. Net advances may be derived by subtracting 'Borrowing members' funds'.

Permanent building societies

The following series of monthly statistics was introduced in May 1969 and relates to the operations of permanent building societies in all States and the Australian Capital Territory. More detailed information for this class of society is provided in the monthly bulletin *Permanent Building Societies*.

PERMANENT BUILDING SOCIETIES: SUMMARY, AUSTRALIA MAY 1969 TO DECEMBER 1969 ($'000)

	Loans approved during month(a)	*Loans advanced during month(b)*	*Loans approved but not advanced at end of month(c)*	*Principal owing on mortgages at end of month*	*Paid-up share-capital at end of month*	*Borrowings by societies—amount owing at end of month(d)*
1969—						
May(*e*)	28,802	28,416	73,203	687,448	535,164	215,122
June	25,924	25,447	72,263	706,221	553,837	221,254
July	32,696	29,523	74,288	728,684	581,741	225,412
August	36,222	28,742	80,485	750,589	605,532	233,045
September	36,571	31,478	84,089	775,161	630,534	200,955
October	45,760	36,817	91,254	805,010	657,682	242,074
November	40,430	32,938	96,577	831,729	676,730	240,123
December	42,850	41,454	95,624	863,786	706,504	251,213

(*a*) Includes loans approved for flats and home units, supplementary loans approved to complete the original purchase or construction of a house, flat or home unit and second mortgage loans approved. (*b*) Includes capitalised mortgage insurance premiums and other capitalised charges. (*c*) Excludes cancellations of loan approvals. (*d*) Includes deposits with societies, advances under Commonwealth and State Housing Agreements but excludes unsecured borrowings from banks. (*e*) Figures not collected for earlier periods.

PERMANENT BUILDING SOCIETIES: LOANS ADVANCED DURING MONTH(*a*), STATES MAY 1969 TO DECEMBER 1969

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Total*
1969—								
May(*b*) . . .	13,681	2,486	2,429	724	7,873	755	467	28,416
June . . .	10,975	2,673	2,676	871	7,366	602	283	25,447
July . . .	14,024	2,946	3,079	994	7,632	566	282	29,523
August . . .	12,578	2,777	3,227	796	8,136	923	306	28,742
September . .	13,831	2,801	3,477	1,030	9,189	773	376	31,478
October . . .	16,195	3,406	4,027	1,133	10,560	1,047	449	36,817
November . .	15,018	3,249	3,350	1,122	8,893	900	405	32,938
December . .	19,120	3,891	4,838	1,454	10,322	1,343	485	41,454

(*a*) Includes capitalised mortgage insurance premiums and other capitalised charges. (*b*) Figures not collected for earlier periods.

PERMANENT BUILDING SOCIETIES: PRINCIPAL OWING ON MORTGAGES, STATES MAY 1969 TO DECEMBER 1969

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Total*
1969—								
May(*a*) . . .	363,068	81,474	68,680	26,758	110,702	27,898	8,869	687,448
June . . .	370,717	83,079	70,648	27,329	117,126	28,222	9,100	706,221
July . . .	381,636	84,661	72,838	28,148	123,699	28,414	9,289	728,684
August . . .	391,127	86,177	75,217	28,719	130,816	28,979	9,556	750,589
September . .	401,681	88,122	77,822	29,532	138,814	29,278	9,913	775,161
October . . .	414,287	91,161	80,737	30,434	148,194	29,855	10,343	805,010
November . .	425,991	94,022	83,327	31,317	155,984	30,365	10,724	831,729
December . .	440,769	96,508	86,724	32,450	165,001	31,167	11,168	863,786

(*a*) Figures not collected for earlier periods.

FRIENDLY SOCIETIES AND CO-OPERATIVE SOCIETIES

Friendly societies

In 1968 the total membership of friendly societies in Australia was about 431,000, but as certain benefits such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowances are made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports dealing with the returns received are published in most of the States.

FRIENDLY SOCIETIES(*a*): SUMMARY, STATES, 1967–68

	N.S.W. (*b*)	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*(*c*)	*Total*
Registered societies	43	126	17	14	11	8	219
Branches	1,677	1,112	411	545	249	111	4,105
Benefit members at end of year	142,023	153,983	63,058	51,070	15,715	4,690	430,539
Average benefit members during year	141,142	152,874	62,850	51,035	15,840	4,813	428,554
Members who received sick pay	n.a.	23,625	5,987	7,791	2,322	760	n.a.
Total weeks sick pay granted	n.a.	396,635	107,204	154,224	54,623	19,715	n.a.
Average weeks per member sick	n.a.	16.8	17.9	19.8	23.5	25.9	n.a.
Deaths of benefit members	n.a.	2,481	1,242	1,098	333	220	n.a.
Proportion of deaths per 1,000 members (average)	n.a.	16.2	19.8	21.5	21.0	45.7	n.a.
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Revenue—							
Entrance fees, levies and members' contributions	15,660	13,737	2,870	6,947	2,251	31	41,498
Interest, dividends and rents	1,296	2,051	466	808	166	78	4,864
All other revenue	1,494	212	166	584	98	8	2,561
Total revenue	*18,451*	*16,000*	*3,502*	*8,339*	*2,515*	*117*	*48,924*
Expenditure—							
Sick pay	443	544	128	190	41	17	1,363
Medical attendance and medicine	12,080	8,819	2,138	5,210	1,925	3	30,176
Sums payable at death	577	248	191	143	45	49	1,253
Administration	2,725	2,602	708	1,057	178	24	9,052
All other expenditure	314	794		465	104	80	
Total expenditure	*16,139*	*13,008*	*3,166*	*7,065*	*2,293*	*172*	*41,844*
Funds—*Total*	*28,470*	*38,154*	*10,166*	*17,490*	*3,910*	*1,343*	*99,534*

(*a*) Excludes juvenile branches, dispensaries, medical institutes, and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded. (*b*) Includes the Australian Capital Territory. (*c*) Year 1968.

Co-operative societies

Co-operative societies are divided into three classes: (i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as producers' co-operative societies and the second as consumers' co-operative societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act, 1923–1967. A summary of the business of all co-operative societies for the year 1967–68 for all States is given in the following table. Separate particulars for each of the three types of co-operative societies are given in the annual bulletin *Insurance and Other Private Finance*, and issue No. 6, 1967–68 contains details for 1966–67.

CO-OPERATIVE SOCIETIES: STATES, 1967-68

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Societies . . No.	367	147	880	68	70	16	1,548
Members . . No.	333,288	129,761	181,760	129,064	63,892	5,575	843,340
Income—	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Gross turnover (sales) .	341,688	144,818	169,913	55,442	79,532	10,142	801,535
Other income . .	2,429	6,547	10,685	4,831	19,085	1,068	44,645
Total . . .	*344,117*	*151,365*	*180,597*	*60,273*	*98,617*	*11,210*	*846,179*
Expenditure—							
Total purchases . .	335,280	112,887	129,047	41,311	69,660	8,429	819,503
Other expenditure .		35,860	45,000	15,379	24,166	2,484	
Total . . .	*335,280*	*148,747*	*174,047*	*56,690*	*93,826*	*10,913*	*819,503*
Rebates and bonuses .	6,675	1,170	1,829	3,028	3,350	53	16,106
Dividends on share capital	1,749	1,213	623	477	678	18	4,758
Liabilities—							
Paid-up capital . .	37,503	22,966	26,367	8,492	11,184	1,219	107,732
Bank overdrafts . .	45,071	21,427	19,528	5,400	6,550	803	98,779
Accumulated profits .	23,345	2,429	7,023	1,674	670	496	102,666
Reserve funds . .		19,277	29,447	6,660	11,122	521	
Loan capital . .	53,109	6,936	29,089	13,356	40,805	1,379	232,932
Sundry creditors . .		19,691	24,307	4,303	9,213	1,553	
Other liabilities . .		6,774	10,100	8,260	3,767	288	
Total . . .	*159,029*	*99,500*	*145,863*	*48,147*	*83,312*	*6,258*	*542,109*
Assets—							
Land and buildings .	65,849	23,788	30,522	10,719	7,182	1,356	252,053
Machinery, plant and other fixed assets .		20,377	45,872	7,086	38,633	669	
Stocks	51,112	15,614	11,109	11,394	7,480	996	97,704
Sundry debtors . .	32,007	29,070	46,962	6,777	17,507	2,736	135,060
Cash in hand and on deposit . . .	10,060	1,699	5,070	1,547	2,671	95	57,291
Profit and loss account		2,908	873	187	82	406	
Other assets . .		6,043	5,454	10,438	9,756		
Total . . .	*159,029*	*99,500*	*145,863*	*48,147*	*83,312*	*6,258*	*542,109*

LOTTERIES AND BETTING

Lotteries

State Governments operate lotteries in New South Wales, Queensland, South Australia, and Western Australia. The Lotteries Commission of South Australia commenced operations on 15 May 1967. Tattersall Sweep Consultations are operated under government licence in Victoria and also sell tickets under government licence in Tasmania and New Zealand. The statistics of sales of tickets and prizes for Victoria include sales and allotments of prizes in Tasmania and New Zealand by Tattersall Sweep Consultations, Victoria. Tasmanian Lotteries were operated under government licence until 30 September 1961, when they surrendered their licence. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc. For information as to the origin, purpose and method of payment of proceeds or taxes to State revenues *see* Year Book No. 46, page 808 and earlier issues.

LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES 1964-65 TO 1968-69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.(a)*	*W.A.*	*Total*
TICKET SALES						
1964–65 . . .	48,830	21,675	14,460	..	3,725	88,690
1965–66 . . .	48,095	20,396	14,360	..	4,025	86,876
1966–67 . . .	50,171	20,300	14,620	500	4,775	90,366
1967–68 . . .	50,528	19,420	15,900	5,200	4,350	95,398
1968–69 . . .	53,335	19,440	16,680	5,350	5,150	99,955
PRIZES ALLOTTED						
1964–65 . . .	31,280	13,005	9,218	..	2,150	55,653
1965–66 . . .	30,815	12,238	9,163	..	2,339	54,555
1966–67 . . .	30,904	12,180	9,332	300	2,803	55,519
1967–68 . . .	30,850	11,652	10,151	3,129	2,493	58,275
1968–69 . . .	32,843	11,664	10,651	3,241	3,001	61,400
TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES(*b*)						
1964–65 . . .	15,079	6,719	3,854	..	1,151	26,803
1965–66 . . .	11,217	6,294	3,588	..	1,146	22,245
1966–67 . . .	11,892	6,296	3,710	50	1,317	23,265
1967–68 . . .	11,809	6,020	4,006	1,603	1,236	24,675
1968–69 . . .	12,202	6,026	4,160	1,437	1,501	25,326

(*a*) The Lotteries Commission of South Australia commenced operations on 15 May 1967. (*b*) Includes grants to Tasmanian and New Zealand governments by Tattersall Sweep Consultations, Victoria.

Betting

TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS STATES AND AUSTRALIAN CAPITAL TERRITORY, 1964–65 TO 1968–69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.* (*a*)	*W.A.*	*Tas.*	*A.C.T.* (*b*)	*Total*
TOTALIZATOR INVESTMENTS								
1964–65 .	41,999	142,492	33,696	4,899	38,951	1,274	1,011	264,321
1965–66 .	94,317	163,006	39,978	4,702	42,568	1,149	1,974	347,695
1966–67 .	146,084	179,490	47,339	7,207	43,077	1,174	2,567	426,938
1967–68 .	196,120	200,253	55,330	20,030	46,180	1,277	3,098	522,288
1968–69 .	241,350	224,955	61,003	26,292	52,938	1,145	4,215	611,897
INVESTMENTS WITH LICENSED BOOKMAKERS(*c*)								
1964–65 .	279,389	159,723	116,797	61,045	20,434	32,612	n.a.	n.a.
1965–66 .	267,987	160,453	118,560	55,022	20,691	32,137	n.a.	n.a.
1966–67 .	283,346	168,381	123,506	55,740	24,817	35,091	n.a.	n.a.
1967–68 .	283,262	172,603	131,145	49,189	27,332	42,090	n.a.	n.a.
1968–69 .	282,497	172,388	141,167	50,263	32,189	41,705	n.a.	n.a.

(*a*) Totalizator Agency Board commenced operating on 29 March 1967. (*b*) Off-course investments only. Totalizator Agency Board commenced operating on 1 September 1964. (*c*) Estimated from taxes on betting with licensed bookmakers.

PROBATES AND LETTERS OF ADMINISTRATION

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION: STATES

		N.S.W. *1968–69* (*a*)	*Vic.* *1968*	*Qld* *1968–69*	*S.A.* *1968*	*W.A.* *1967–68* (*b*)	*Tas.* *1968* (*c*)
Estates . .	No.	29,641	20,389	9,825	5,092	4,614	1,889
Gross value . .	$'000	n.a.	352,994	154,097	82,222	n.a.	30,204
Net value . .	$'000	459,240	319,820	143,078	76,800	52,119	29,865

(*a*) Total estates of deceased persons assessed for death duty. (*b*) Net value includes duty-free bequests of $1,028,000. (*c*) Estates dealt with by the Taxation Department.

CHAPTER 18

PUBLIC FINANCE

The subject of public finance is dealt with in this chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand also a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement the Commonwealth assumed the liability to bondholders for the States' securities existing at the date of the Agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of such securities. In view of this it is convenient to deal with the Commonwealth and State Government securities on issue in a separate division of this chapter (pages 576–82). The subject of income taxes is also dealt with in a separate division at the end of this chapter (pages 586–95).

For further detailed information on the subjects covered by this chapter *see* the annual bulletins published by this Bureau: *Australian National Accounts; National Income and Expenditure; Commonwealth Finance; State, Territory and Local Government Authorities' Finance and Government Securities;* and *Commonwealth Taxation Assessments*. Current information in summarised form is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, and the *Digest of Current Economic Statistics*. A mimeographed bulletin *Commonwealth, State and Territory Taxation Collections* is issued annually as soon as possible after the relevant information has been assembled.

COMMONWEALTH FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pages 16–19 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Sections 87 and 96 deal with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Year Book, and on pages 548–54 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The *Audit Act* 1901–1969 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth finances is the responsibility of the Treasurer of the Commonwealth.

Commonwealth Budget

The Commonwealth Budget results include transactions of the Consolidated Revenue Fund, the Trust Fund and the Loan Fund. Ordinary revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, war and repatriation services, social services, payments to the States and administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth at some future time. The Loan Fund receives its funds from the sale of Commonwealth securities, and expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States, either by way of distribution of the proceeds of loans raised by the Commonwealth on their behalf or in accordance with the provisions of the Commonwealth and State Housing Agreements, and the remaining disbursements are for Commonwealth purposes such as defence or war service land settlement.

Summary of receipts and expenditure

A summary of Commonwealth Budget results for 1968–69 and the four preceding years is given in the table which follows. The transactions are recorded on a cash basis.

COMMONWEALTH BUDGET: SUMMARY OF TRANSACTIONS
1964-65 TO 1968-69
($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Expenditure(*a*)	4,448	4,969	5,525	6,099	6,514
Receipts(*a*)	4,266	4,714	4,973	5,456	6,129
Deficit	**183**	**255**	**552**	**642**	**385**
Financing—					
United States Defence Credit (net)	..	..	91	118	55
Other overseas borrowings	−14	−23	−62	14	88
Issue of securities in Australia—					
Net loan proceeds(*b*)	252	298	408	297	381
Net change in Treasury notes on issue	−72	36	−26	184	−68
Borrowings from the Reserve Bank	38	−36	165	51	−127
Total securities issued in Australia	218	298	546	532	186
Funds provided for International Monetary Fund drawings of Australian currency	−22	−40	−27	−59	−5
Use of Cash Balances	−4	..	−1	..	..
Other financing transactions in Australia(*c*)	4	21	5	37	62
Deficit	**183**	**255**	**552**	**642**	**385**

(*a*) Comparisons between the figures for the years 1966–67 to 1968–69 and those for 1964–65 and 1965–66 are affected by accounting changes. (*b*) Includes State domestic raisings. (*c*) Includes funds obtained from coinage and bullion transactions, amounts borrowed by Commonwealth trust accounts, net amounts available from Commonwealth trust account transactions in Commonwealth Government securities, amounts available from moneys held in trust, etc.

Minus sign (−) denotes decrease.

All Commonwealth funds: summary of receipts and expenditure

The following table represents a reclassification of Commonwealth Government receipts and outlay in a National Accounts form. It includes the Commonwealth Government components (with slight re-arrangement) of tables 57 and 60 in *Australian National Accounts, National Income and Expenditure 1968–69*. However, an important conceptual difference in this table is that no adjustment is made for the difference between deliveries of, and payments for, major items of defence equipment from overseas. Advances to semi-governmental authorities are included in 'Other advances'. The table differs from that shown in Statement No. 6 attached to the Budget Speech in that the transactions of the post office are included on a commercial basis, whilst borrowing and the corresponding advances in respect of State works programmes are excluded. The treatment of certain other advances and repayments also varies slightly in this table. They are all classified on the outlay side whereas in the Budget table some are included in the deficit.

ALL COMMONWEALTH FUNDS: RECEIPTS AND EXPENDITURE, 1964-65 TO 1968-69
($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
EXPENDITURE					
Current expenditure on goods and services	977	1,146	1,402	1,630	1,766
Capital expenditure on new assets and stocks	264	301	334	382	435
Purchases of existing assets	4	5	5	9	15
Subsidies	74	114	128	133	205
Interest	82	75	74	89	84
Cash benefits to persons	1,078	1,154	1,243	1,292	1,405
Grants for private capital purposes	26	47	45	(*a*) 57	31
Overseas grants and contributions	107	127	151	154	159
Grants to States	958	1,076	1,183	1,312	1,419
Grants to semi-governmental authorities	94	105	119	125	136
Advances to States	142	173	167	200	177
Other advances	193	200	182	225	116
Total expenditure	**3,998**	**4,522**	**5,034**	**5,607**	**5,948**
RECEIPTS					
Taxation	3,788	4,187	4,456	4,917	5,489
Interest, rent and dividends	104	117	127	111	129
Net revenue of business undertakings	96	101	89	110	144
Fees and charges for goods and services	55	63	63	65	87
Sales of existing assets	17	13	8	11	16
Repayments of advances to States	22	28	31	31	67
Repayments of other advances	37	36	40	46	51
Net borrowing	−71	−34	137	347	−92
Reduction in—					
Cash balances	−6	2	−13	15	. .
Security holdings	−121	−85	9	−140	−155
Other net receipts	77	93	87	94	212
Total receipts	**3,998**	**4,522**	**5,034**	**5,607**	**5,948**

(*a*) Includes $21,000,000 devaluation compensation paid to marketing authorities.
Minus sign (—) denotes decrease.

All Commonwealth funds: expenditure, economic type and function

In the following two tables particulars of expenditure for 1968–69 shown in the previous table have been reclassified to a 'net' basis by taking account of the relevant items shown as receipts in that table, e.g. fees and charges for goods and services, sales of existing assets, etc. Resulting totals have been classified by economic type and by function for 1968–69 in the table on page 541 and by function only for the years 1964–65 to 1968–69 in the table on page 542.

ALL COMMONWEALTH FUNDS

1968-69

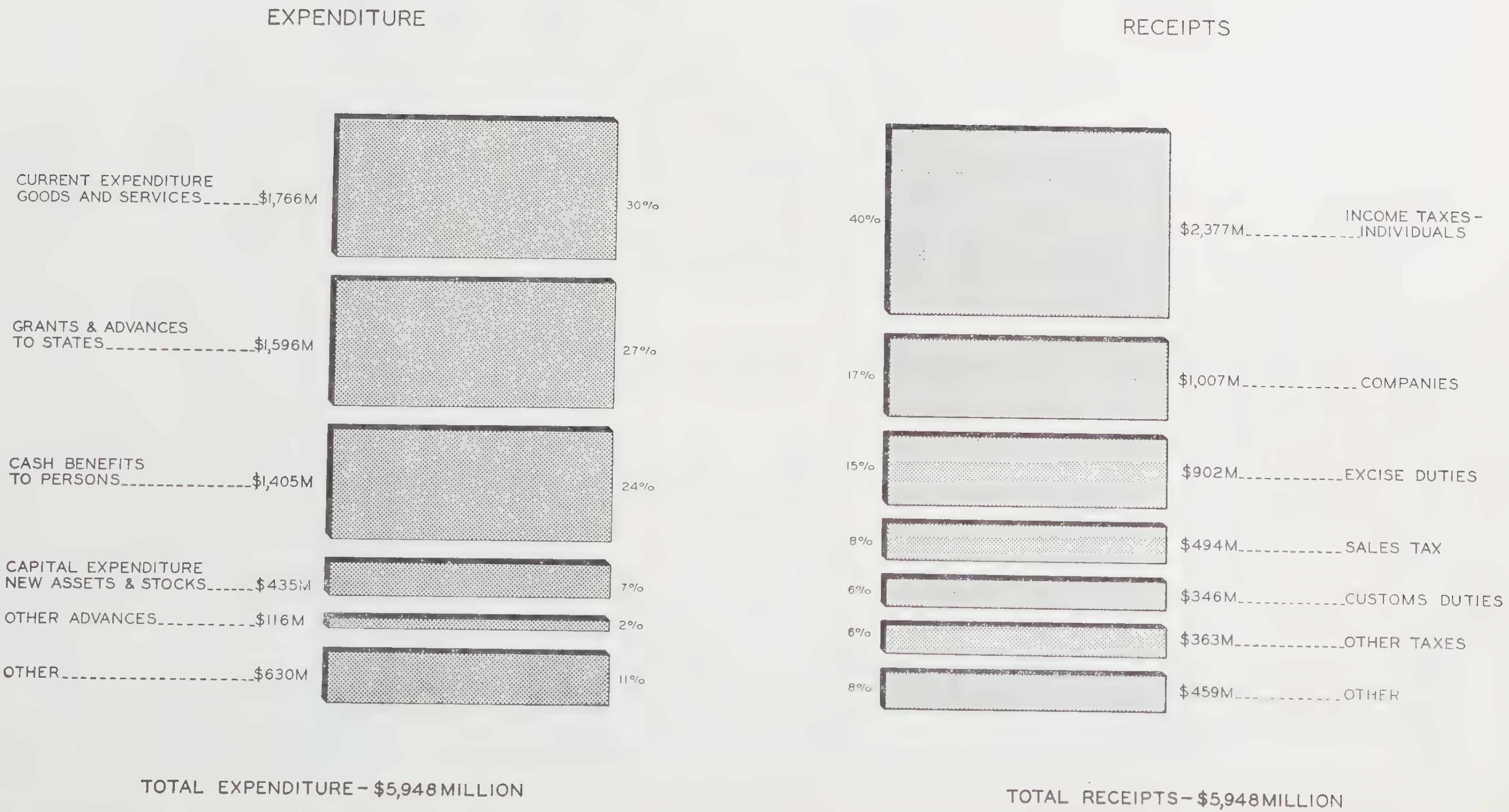


PLATE 34

ALL COMMONWEALTH FUNDS: TOTAL NET EXPENDITURE, BY ECONOMIC TYPE AND FUNCTION, 1968–69

($ million)

NET CURRENT EXPENDITURE

	Expenditure on goods and services	*Cash benefits*	*Subsidies*	*Overseas grants*	*Grants to States*	*Current grants to semi-government authorities*	*Grants for private capital purposes*	*Total*
Law, order and public safety	13	..	..	..	..	..	..	13
Education	15	33	..	1	53	19	1	121
Cultural and recreational facilities	9	..	..	1	..	..	..	10
Public health	29	292	..	1	..	..	..	323
Welfare	24	855	..	..	..	..	10	890
War and defence	1,077	..	..	16	..	..	..	1,093
Repatriation	78	219	..	..	..	..	6	303
Development of resources and assistance to industry	115	..	183	..	16	44	..	359
Transport and communication	36	..	2	6	..	..	..	44
Legislature and general administration	161	..	..	1	..	1	..	164
External affairs	25	..	..	44	..	..	..	69
Immigration	53	5	..	1	..	..	..	59
Regulation of trade and industry	12	1	19	..	..	15	..	47
Housing	5	..	..	..	..	..	13	18
Other	3	..	..	88	..	2	1	93
Not allocated to function	23	..	..	..	1,086	..	..	1,109
Total net current expenditure	**1,679**	**1,405**	**205**	**159**	**1,155**	**81**	**31**	**4,715**

NET CAPITAL EXPENDITURE

	Expenditure on new assets and stocks	*Net purchases of existing assets*	*Grants to States*	*Capital grants to semi-government authorities*	*Net advances to States*	*Other net advances*	*Total*
Education	3	..	55	10	..	..	68
Cultural and recreational facilities	7	..	..	..	..	..	8
Public health	2	..	6	..	..	..	8
War and defence	..	6	..	..	..	..	6
Development of resources and assistance to industry	10	..	12	9	3	−1	33
Transport and communication—							
Post office	301	..	..	..	..	..	301
Civil aviation	37	2	..	..	..	−12	26
Roads	9	..	176	13	−1	..	198
Other	15	1	11	..	16	4	47
Power, fuel and light	..	..	..	..	3	31	34
Housing	8	−15	..	8	119	25	145
Other	37	6	4	15	..	4	65
Not allocated to function	6	..	..	..	−31	15	−11
Total net capital outlay	**435**	**−1**	**264**	**55**	**110**	**65**	**928**

The following table shows net expenditure from all Commonwealth funds for the years 1964–65 to 1968–69, classified according to function and irrespective of economic type.

ALL COMMONWEALTH FUNDS: TOTAL NET EXPENDITURE, BY FUNCTION 1964-65 TO 1968-69

($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
NET CURRENT EXPENDITURE					
Law, order and public safety	6	7	9	12	13
Education	64	75	91	107	121
Cultural and recreational facilities	5	5	7	8	10
Public health	220	250	271	291	323
Welfare	696	721	797	826	890
War and defence	568	707	911	1,066	1,093
Repatriation	240	268	267	277	303
Development of resources and assistance to industry	176	228	263	300	359
Transport and communication	32	33	38	40	44
Legislature and general administration	102	116	144	155	164
External affairs	41	46	51	61	69
Immigration	36	38	41	44	59
Regulation of trade and industry	18	28	35	43	47
Housing	15	18	17	18	18
Other	64	85	87	84	93
Not allocated to function	781	855	912	1,007	1,109
Total net current expenditure	**3,063**	**3,480**	**3,941**	**4,340**	**4,715**
NET CAPITAL EXPENDITURE					
Education	42	43	51	66	68
Cultural and recreational facilities	12	11	11	11	8
Public health	7	9	8	8	8
War and defence	1	4	2	2	6
Development of resources and assistance to industry	18	28	32	64	33
Transport and communication—					
Post office	187	215	235	267	301
Civil aviation	42	42	47	81	26
Roads	147	162	170	183	198
Other	31	43	39	49	47
Power, fuel and light	45	42	47	46	34
Housing	152	163	155	143	145
Other	21	29	44	44	65
Not allocated to function	39	52	36	73	−11
Total net capital expenditure	**744**	**842**	**876**	**1,037**	**928**

Main components of all Commonwealth funds expenditure

The tables on pages 543–51 supply details of some of the main components of total expenditure of the Commonwealth Government.

Net expenditure on goods and services

The following table classifies by function net expenditures on goods and services derivable from the table on page 539 together with identified final expenditures on goods and services included in that table under 'grants to semi-government authorities'. It includes the Commonwealth Government component of Tables 66 and 75 in the Australian National Accounts together with net expenditure on stocks.

ALL COMMONWEALTH FUNDS: NET EXPENDITURE ON GOODS AND SERVICES BY FUNCTION, 1964-65 TO 1968-69

($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
NET CURRENT EXPENDITURE					
Law, order and public safety	6	7	9	12	13
Education	19	21	24	29	34
Cultural and recreational facilities	5	5	7	7	9
Public health	16	20	24	26	29
Welfare	15	14	17	21	24
War and defence	558	684	876	1,040	1,077
Repatriation	56	62	68	73	78
Development of resources and assistance to industry	95	106	115	124	146
Transport and communication	27	25	30	34	36
Legislature and general administration	98	111	139	153	163
External affairs	15	17	18	23	25
Immigration	33	33	35	38	53
Regulation of trade and industry	9	9	9	13	15
Housing	4	4	5	5	5
Other	4	3	..	..	4
Not allocated to function	5	10	11	17	23
Total net current expenditure	**964**	**1,132**	**1,388**	**1,615**	**1,736**
NET CAPITAL EXPENDITURE—NEW ASSETS AND STOCKS					
Education	9	9	11	12	13
Cultural and recreational facilities	12	10	9	12	7
Public health	3	3	2	3	3
Development of resources and assistance to industry	13	12	22	22	19
Transport and communication—					
Post office	186	214	234	265	301
Civil aviation	16	22	28	29	37
Roads	9	14	12	18	22
Other	8	12	13	15	15
Housing	9	13	12	14	15
Other	23	24	36	42	52
Not allocated to function	14	10	5	3	6
Total net capital expenditure	**302**	**342**	**383**	**435**	**490**

In addition to showing departmental components of total net current expenditure on war and defence during the years 1964–65 to 1968–69, the following table also includes annual totals of other expenditures on war and defence classified to overseas grants and contributions and to net purchases of existing assets. Details of the expenditure on war and defence shown in the following table cover expenditure from all funds (including U.S. Defence Credit) by the services and associated departments including costs of maintaining forces in overseas posts.

ALL COMMONWEALTH FUNDS: EXPENDITURE ON WAR AND DEFENCE
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Net Current Expenditure—					
Department of Defence—					
Administrative and general expenses	4,022	5,053	6,395	7,816	8,017
Recruiting campaign	1,690	1,646	1,556	1,600	1,611
Buildings, works, etc.	285	181	931	1,507	1,797
Plant and equipment	161	1,890	906	253	1,065
Defence Aid for Malaysia and Singapore	3,376	5,034	8,036	6,096	6,243
S.E.A.T.O. Military Planning Office—Contribution towards cost	24	18	18	22	24
Maintenance and rent	117	202	238	198	313
	9,675	14,024	18,080	17,492	19,071
Less Receipts	..	..	..	..	74
Total	9,675	14,024	18,080	17,492	18,997
Department of the Navy—					
Naval forces—Pay, administrative and general expenses	60,431	68,027	79,346	87,285	99,882
Naval construction and additions to the fleet	35,967	44,918	52,616	53,127	47,250
General stores	20,942	29,264	37,527	40,772	52,447
Ships, aircraft, etc.—					
Purchase and manufacture	1,308	6,886	7,210	8,668	4,794
Repairs and maintenance	7,315	8,608	10,867	20,050	10,485
Buildings, works, etc.	3,908	6,930	7,211	6,833	6,522
Machinery and plant for dockyards and establishments	1,013	1,326	2,108	1,900	2,577
Defence research and development	1,395	263	348	329	240
Maintenance and rent	2,631	3,159	3,692	3,705	4,793
Retirement benefits	1,172	1,229	1,392	2,097	2,453
Other	2,772	2,460	3,053	3,130	2,196
	138,854	173,070	205,369	227,896	233,639
Less Receipts	3,963	3,892	4,260	4,333	4,652
Total	134,891	169,179	201,109	223,563	228,987
Department of the Army—					
Military forces—Pay, administrative and general expenses	108,834	133,500	169,865	197,276	216,332
Forces overseas (other than pay)	4,566	9,773	26,440	34,048	45,836
Arms, armament and equipment	61,690	67,921	84,675	96,143	115,602
Buildings, works, etc.	13,421	35,821	56,863	38,769	16,860
Maintenance and rent	6,372	7,503	8,447	9,829	12,447
Retirement benefits	3,368	3,657	3,827	4,758	6,010
Other	276	509	468	463	..
	198,527	258,684	350,585	381,288	413,087
Less Receipts	4,246	2,297	2,880	2,254	4,619
Total	194,282	256,389	347,705	379,035	408,468

ALL COMMONWEALTH FUNDS: EXPENDITURE ON WAR AND DEFENCE—*continued*

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Department of Air—					
Air force—Pay, administrative and general expenses	69,543	77,541	86,630	97,067	113,391
Forces overseas (other than pay)	5,592	7,080	9,447	13,998	19,264
Aircraft—					
Purchase and manufacture	48,090	62,353	106,383	172,317	136,470
Repairs and maintenance	5,298	6,380	8,037	9,367	9,452
Equipment and stores	37,647	42,980	50,390	58,442	70,063
Buildings, works, etc.	7,459	12,938	11,587	16,559	17,212
Maintenance and rent	5,570	6,024	7,096	7,912	9,335
Retirement benefits	2,296	2,582	2,808	3,165	4,040
Other	346	738	606	606	. .
	181,841	218,616	282,984	379,433	379,226
Less Receipts	905	4,336	1,999	1,446	3,351
Total	180,935	214,280	280,985	377,989	375,875
Department of Supply—					
Administrative and general expenses	7,169	7,944	9,491	10,642	12,458
Defence research and development	33,374	33,016	34,262	36,664	39,957
Production development	787	976	838	1,427	2,168
Government factories—Maintenance of production capacity	2,766	2,270	3,358	3,309	3,341
Transport and storage services	6,764	7,027	7,661	10,088	9,107
Reserve stocks	1,074	2,775	3,568	3,545	2,453
Munitions factories—Working capital	. .	2,004	475	869	2,379
Machinery, plant, equipment, etc.	5,811	8,001	10,032	9,355	8,330
Buildings, works, n.e.i., etc.	4,840	5,259	5,021	4,796	4,772
Maintenance and rent	4,190	4,211	4,426	4,300	4,466
Other	16,497	18,981	25,197	27,392	. .
	83,272	92,464	104,329	112,387	89,431
Less Receipts	40,083	45,290	49,271	49,662	31,031
Total	43,190	47,174	55,058	62,725	58,400
Other—					
Civil Defence	645	724	709	734	759
Security Intelligence Organisation	1,920	1,990	2,565	2,753	2,807
Other	2,627	2,780	4,314	1,652	−926
Total	5,191	5,494	7,588	5,140	2,640
Total net current expenditure	*568,165*	*706,539*	*910,526*	*1,065,945*	*1,093,367*
Of which—					
Overseas grants and contributions	10,210	22,678	34,456	25,772	16,160
Other net current expenditure	557,955	683,861	876,070	1,040,173	1,077,207
Total net current expenditure	*568,165*	*706,539*	*910,526*	*1,065,945*	*1,093,367*
Net capital outlay—					
Net purchases of existing assets	813	3,598	2,409	1,653	5,968
Grand total	**568,978**	**710,137**	**912,935**	**1,067,598**	**1,099,335**

Subsidies

The following table shows details of Commonwealth expenditure from all funds on subsidies and bounties for the years 1964–65 to 1968–69. Other assistance to primary producers is included in, for example, tables relating to cash benefits and payments to the States and additional information is given in chapter 23, Rural Industry. Details of price stabilisation subsidies and of various forms of assistance to primary producers for earlier years are given on pages 414 and 1014–15, respectively, of Year Book No. 38.

ALL COMMONWEALTH FUNDS: EXPENDITURE ON SUBSIDIES, 1964-65 TO 1968-69
($'000)

Type of subsidy	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Development of resources and assistance to industry—					
Dairy industry	27,000	27,000	27,000	27,000	27,000
Wheat prices stabilisation	1,892	18,069	16,154	15,508	42,870
Phosphate fertilisers	22,880	24,983	26,319	23,564	31,665
Oil search	8,838	11,382	9,931	11,711	12,497
Nitrogenous fertilisers	..	..	6,665	10,308	11,044
Copper	300	1	..	..	..
Gold mining industry	1,860	2,462	3,848	4,362	1,791
Pyrites	924	854	103	..	..
Cotton	1,916	3,686	2,813	4,027	4,620
Processed milk products	864	614	899	743	638
Sulphate of ammonia	526	427	830	565	430
Vinyl resin	364	1,938	1,592	12	..
Copper and brass strip	154	43	..	..	..
Ship construction	5,911	7,828	11,692	11,644	12,551
Sulphuric acid	1,822	1,906	1,556	1,286	988
Tractor	2,754	1,902	2,221	2,480	2,249
Cellulose acetate flake	134	228	218	220	179
Poultry industry assistance	..	5,536	9,213	10,418	10,920
Urea	..	..	9	163	424
Devaluation compensation	..	..	..	..	35,862
Transport and communication—					
Air services	1,000	1,200	1,306	1,901	1,780
Coastal shipping service—					
King Island and Bass Strait Islands	66	161	160	150	141
Northern Territory	14	43	44	39	24
Northern Territory—					
Air mail service	118	118	..	..	..
Railway freight	90	140	110	100	113
Superphosphate sea subsidy	..	..	5	43	23
Transport of stud stock	40	59	83	80	175
South American shipping service	278	335	351	300	180
Regulation of trade and industry—					
Stevedoring industry	6,094	6,149	6,525	8,553	9,654
Petrol prices stabilisation	..	9,920	15,218	16,578	17,948
Northern Territory petrol prices	..	345	750	991	1,316
Other	326	400	399	363	68
Total	**86,164**	**127,729**	**146,014**	**153,108**	**227,145**

Cash benefits to persons

Total payments of cash benefits to persons during the years 1964–65 to 1968–69 are shown in the table following.

ALL COMMONWEALTH FUNDS: CASH BENEFITS TO PERSONS 1964–65 TO 1968–69

($'000)

Type of benefit	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Education—					
Commonwealth scholarship scheme—					
Post-graduate	1,236	1,733	2,432	2,899	3,588
University	7,903	10,064	13,890	13,383	16,268
Advanced education	..	198	660	754	1,001
Secondary	3,382	5,197	6,243	6,474	6,558
Technical	212	600	816	1,031	1,123
Soldiers' children education scheme	2,311	2,534	2,462	2,720	3,154
Other	573	812	816	852	903
Total, education	*15,614*	*21,140*	*27,319*	*28,113*	*32,595*
Health—					
Hospital benefits	25,411	24,860	25,900	26,598	29,779
Hospital benefits for pensioners	13,585	14,659	18,731	23,665	24,520
Nursing home benefits	19,796	21,223	22,767	24,486	31,643
Medical benefits	35,277	41,282	43,841	46,431	49,556
Medical benefits for pensioners	9,320	13,365	14,351	16,116	16,912
Milk for school children	8,059	8,493	9,021	9,831	10,053
Pharmaceutical benefits	60,638	67,713	72,000	73,019	81,764
Pharmaceutical benefits for pensioners	21,564	24,071	29,280	32,115	36,609
Tuberculosis campaign	10,111	13,361	10,974	11,266	11,460
Handicapped children's benefit	..	..	..	..	76
Total, health	*203,762*	*229,028*	*246,868*	*263,529*	*292,372*
Welfare—					
Age and invalid pensions	426,597	442,355	481,840	513,984	558,587
Child endowment	172,830	176,432	199,282	187,920	193,263
Commonwealth rehabilitation service	1,604	1,660	1,844	1,944	2,260
Funeral benefits	866	1,050	1,334	1,338	1,571
Maternity allowances	7,294	7,159	7,294	7,349	7,960
Tuberculosis campaign—allowances	1,458	1,286	1,193	1,091	921
Unemployment benefits, sickness and special benefits	14,540	15,557	19,044	18,832	16,830
Widows' pensions	47,044	50,017	56,438	61,061	69,080
Sheltered employment allowances	..	..	..	104	288
Deserted wives benefits	..	..	..	201	1,149
Other	1,025	2,066	1,795	2,220	2,723
Total, welfare	*673,258*	*697,580*	*770,064*	*796,044*	*854,631*
Development of resources and assistance to industry—					
Wool research studentships and fellowships	58	85	158	270	360
Repatriation—					
War and service pensions and allowances	179,313	198,662	190,842	196,219	216,958
Other	1,694	1,849	1,908	1,952	1,981
Total, repatriation	*181,007*	*200,511*	*192,750*	*198,171*	*218,939*
Immigration—					
Maintenance of migrant families	3,752	4,380	5,240	4,803	4,933
Regulation of trade and industry—					
Coal mining industry—long service leave	1,021	893	919	918	892
Stevedoring industry	1,614	1,726	2,824	2,194	1,436
Total, regulation of trade and industry	*2,635*	*2,619*	*3,743*	*3,112*	*2,328*
Housing—					
Commonwealth-State Housing Agreement—					
Contribution to rental losses	130	213	142	44	60
Grand total	**1,080,216**	**1,155,556**	**1,246,284**	**1,294,086**	**1,406,218**

Further information concerning items in the preceding table is given in the appropriate chapters of this Year Book and in the annual bulletin *Commonwealth Finance* which shows particulars of cash benefits paid to persons in each State and Territory.

Payments to or for the States

An outline of the provisions of the Constitution providing for the Commonwealth to make payments to the States, and of the systems which followed, is given in earlier issues of the Year Book (*see* No. 37, pages 633 to 638). In the following summary tables, a distinction is made between (*a*) direct Commonwealth financial assistance to the States in the form of grants to provide revenue for general and specific purposes and (*b*) those forms of assistance for developmental and other specific purposes which include, in part or in total, payments made in the form of repayable advances. Some information about the more important or most recent of these forms of financial assistance is given on pages 551–4, but for greater detail on these and other forms of financial assistance *see* earlier issues. Further information is available also in the chapters of this issue dealing with the respective subjects.

Grants. The following three tables show particulars of the amounts paid to the States as grants for the purposes referred to in (*a*) above.

ALL COMMONWEALTH FUNDS: GRANTS TO THE STATES, BY FUNCTIONS, 1968-69
($'000)

Function	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
CURRENT							
Education	18,974	15,977	6,555	5,437	4,021	1,731	52,695
Welfare	206	26	84	7	2	1	326
Development of resources and assistance to industry	4,798	6,986	2,110	1,417	425	228	15,965
Not allocated to function—							
Financial assistance grants	333,393	250,563	155,963	112,768	123,796	41,710	1,018,193
Other	17,038	12,442	6,849	7,593	4,932	19,328	68,181
Total, current	**374,409**	**285,994**	**171,561**	**127,222**	**133,176**	**62,998**	**1,155,360**
CAPITAL							
Education	18,608	16,148	8,092	5,356	3,730	2,787	54,721
Public health	2,496	1,375	362	503	375	402	5,513
Welfare	581	207	1,366	343	825	25	3,347
Development of resources and assistance to industry	2,858	974	2,967	150	5,373	74	12,396
Transport and communication—							
Roads	47,319	33,113	35,648	19,433	31,988	8,500	176,001
Other	1,750	. .	. .	6,243	3,443	. .	11,436
Other	35	. .	. .	. .	411	. .	446
Total, capital	**73,647**	**51,817**	**48,435**	**32,028**	**46,145**	**11,788**	**263,860**
TOTAL GRANTS							
Grand total	**448,056**	**337,811**	**219,996**	**159,250**	**179,321**	**74,786**	**1,419,220**

ALL COMMONWEALTH FUNDS: TOTAL GRANTS TO THE STATES, BY FUNCTION 1964-65 TO 1968-69

($'000)

Function	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
CURRENT					
Education	28,529	32,929	38,772	48,339	52,695
Welfare	24	22	23	23	326
Development of resources and assistance to industry	1,626	11,256	25,346	30,284	15,965
Not allocated to function—					
Financial assistance grants	681,348	757,351	826,613	907,539	1,018,193
Other	63,536	74,701	74,193	70,964	68,181
Total, current	**775,061**	**876,259**	**964,947**	**1,057,152**	**1,155,360**
CAPITAL					
Education	32,650	32,074	40,091	53,958	54,721
Public health	3,200	5,235	5,501	5,062	5,513
Welfare	. .	. .	. .	. .	3,347
Development of resources and assistance to industry	4,007	3,512	3,155	8,424	12,396
Transport and communication—					
Roads	134,894	145,340	155,349	165,600	176,001
Other	7,656	12,426	12,278	20,925	11,436
Other	380	750	1,954	843	446
Total, capital	**182,789**	**199,338**	**218,328**	**254,811**	**263,860**
TOTAL GRANTS					
Grand total	**957,850**	**1,075,596**	**1,183,275**	**1,311,963**	**1,419,220**

Further information concerning items included in the functional classifications of the two preceding tables is given in the annual bulletin *Commonwealth Finance* 1968–69.

Repayable advances. The following tables show functional classifications of amounts paid to the States as repayable advances.

ALL COMMONWEALTH FUNDS: ADVANCES TO THE STATES, BY FUNCTION, 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
GROSS							
Development of resources and assistance to industry	6,960	3,500	2,859	2,264	4,329	2,438	22,350
Transport and communication—							
Railway projects	..	..	..	2,635	4,919	..	7,554
Other	..	..	..	11,000	..	..	11,000
Power, fuel and light	..	..	..	..	..	3,200	3,200
Housing	45,308	36,038	12,146	19,500	12,394	7,511	132,899
Not allocated to function	..	..	..	..	..	..	..
Total gross advances	**52,268**	**39,538**	**15,005**	**35,399**	**21,642**	**13,149**	**177,003**
REPAYMENTS							
Development of resources and assistance to industry	1,940	142	1,084	2,722	6,491	7,102	19,482
Transport and communication—							
Railway projects	96	96	1,208	213	273	..	1,886
Other	330	..	637	..	151	..	1,118
Power, fuel and light	..	..	..	..	..	..	..
Housing	4,699	4,257	1,288	1,532	1,186	449	13,413
Not allocated to function	9,965	10,134	2,221	4,002	2,607	2,273	31,202
Total repayments	**17,030**	**14,629**	**6,437**	**8,469**	**10,708**	**9,824**	**67,099**
NET							
Development of resources and assistance to industry	5,020	3,358	1,775	−458	−2,162	−4,664	2,868
Transport and communication—							
Railway projects	−96	−96	−1,208	2,422	4,646	..	5,668
Other	−330	..	−637	11,000	−151	..	9,882
Power, fuel and light	..	..	..	..	..	3,200	3,200
Housing	40,609	31,781	10,858	17,968	11,208	7,062	119,486
Not allocated to function	−9,965	−10,134	−2,221	−4,002	−2,607	−2,273	−31,202
Total net advances	**35,238**	**24,909**	**8,567**	**26,930**	**10,934**	**3,325**	**109,904**

Minus sign (−) denotes excess of repayment.

ALL COMMONWEALTH FUNDS: TOTAL ADVANCES TO THE STATES BY FUNCTION, 1964-65 TO 1968-69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
GROSS					
Development of resources and assistance to industry	12,832	27,255	24,158	50,208	22,350
Transport and communication—					
Railway projects	10,388	12,410	12,647	13,989	7,554
Other	3,376	6,107	2,806	. .	11,000
Power, fuel and light	. .	. .	. .	5,300	3,200
Housing	115,116	124,242	127,753	129,943	132,899
Not allocated to function	762	2,600	. .	726	. .
Total gross advances	**142,474**	**172,615**	**167,363**	**200,166**	**177,003**
REPAYMENTS					
Development of resources and assistance to industry	11,590	16,405	17,099	15,383	19,482
Transport and communication—					
Railway projects	824	1,387	1,540	1,724	1,886
Other	230	315	494	1,113	1,118
Power, fuel and light	. .	. .	. .	. .	. .
Housing	9,248	10,237	11,240	12,297	13,413
Not allocated to function	. .	. .	990	. .	31,202
Total repayments	**21,892**	**28,344**	**31,363**	**30,517**	**67,099**
NET					
Development of resources and assistance to industry	1,242	10,850	7,059	34,824	2,868
Transport and communication—					
Railway projects	9,564	11,023	11,107	12,265	5,668
Other	3,146	5,792	2,312	−1,113	9,882
Power, fuel and light	. .	. .	. .	5,300	3,200
Housing	105,868	114,005	116,513	117,646	119,486
Not allocated to function	762	2,600	−990	726	−31,202
Total net advances	**120,582**	**144,271**	**136,000**	**169,649**	**109,904**

Minus sign (−) denotes excess of repayments.

Further information concerning items included in the functional classifications of the two preceding tables is given in the annual bulletin *Commonwealth Finance* 1968–69.

The Financial Assistance Grants. Under the provisions of the *States Grants Act* 1965–1968, the financial assistance grant paid to each State is determined by increasing the grant paid to that State for previous financial year (with the addition of $2,000,000 to the grant paid to Queensland in each year up to 1969–70) in accordance with a formula using the percentage change of the population of the State during the year ending 31 December of the year of payment, the percentage increase in average wages for Australia as a whole for the year ended 31 March of the year of payment, and a betterment factor of 1.2 per cent. Western Australia's withdrawal from the 'special grants' system as from 1968–69 did not affect existing formula grants arrangements as, in 1968–69 and 1969–70, additional Commonwealth payments of $15,500,000 were made to that State.

Contributions under Financial Agreement. Details of the Financial Agreement between the Commonwealth and the States are given in Year Book No. 37, pages 685–90. Under this Agreement the Commonwealth undertook to contribute $15,169,824 per annum towards interest payable on the State loan securities for a period of 58 years from 1 July 1927. This amount is distributed among the States as follows: New South Wales, $5,834,822; Victoria, $4,254,318; Queensland, $2,192,470; South Australia, $1,407,632; Western Australia, $946,864; Tasmania, $533,718. In addition, under the Financial Agreement the Commonwealth agreed to make certain contributions to the National Debt Sinking Fund for redemption of State loan securities. Details of these are given on page 585 of this chapter.

Special grants. The Commonwealth Grants Commission inquires into and reports upon claims made by any State for a special grant and any matters relevant thereto. The recommendations of the Commission in respect of the years 1965–66 to 1969–70 for Tasmania, and in respect of Western Australia for the years 1965–66 to 1968–69, are shown in their two parts in the following table. One part is the Commission's estimate of the indispensable need of the claimant State for the year in which the payment is to be made after allowing a sufficient margin for safety. The other part is an adjustment of this estimate for an earlier year after an examination of the audited accounts for that year. Thus the grants for 1969–70 include an estimate of the indispensable need of the claimant State for 1969–70 and an adjustment to the estimated grant for 1967–68.

COMMONWEALTH GRANTS COMMISSION: GRANTS RECOMMENDED, 1965-66 TO 1969-70
($'000)

	1965–66	*1966–67*	*1967–68*	*1968–69*	*1969–70*
Western Australia—					
Advance payment	21,000	14,700	15,500	. .	. .
Completion payment(*a*)	3,038	4,706	18	582	. .
Total	*24,038*	*19,406*	*15,518*	*582*	. .
Tasmania—					
Advance payment	16,400	19,500	19,000	18,000	22,000
Completion payment(*a*)	1,332	1,166	889	−1,190	−100
Total	*17,732*	*20,666*	*19,889*	*16,810*	*21,900*
Grand total	**41,770**	**40,072**	**35,407**	**17,392**	**21,900**

(*a*) Adjustment to estimated grant paid two years previously.

Natural disasters. Under the States Grants (Drought Assistance) Acts, New South Wales, Victoria, Queensland, South Australia and Tasmania have been given Commonwealth financial assistance to relieve the effects of drought. In addition, the Commonwealth is assisting States to meet budgetary problems arising from the effects of drought on their revenues.

The Commonwealth has provided financial assistance to Tasmania for the rehabilitation and restoration of damage caused by bushfires in February 1967 and to Western Australia for earthquake relief in the Meckering area of that State following the disaster in October 1968. Bushfire relief grants of $100,000 to New South Wales and of $200,000 to Victoria were made in 1968–69 and 1969–70 respectively.

The *Commonwealth Aid Roads Act* 1969 provided for principal and supplementary grants totalling $1,252,050,000 to be paid to the States over the five-year period commencing on 1 July 1969. Supplementary grants totalling $52,050,000 are to be made to South Australia, Western Australia and Tasmania to assist in the transition from arrangements under the 1964 Act and the principal grant of $1,200,000,000 is to be allocated specifically as follows: Urban-arterial and sub-arterial roads $600,690,000; Rural-arterial roads $186,760,000 and other rural roads $394,550,000 and planning and research $18,000,000. Total grants of $1,252,050,000 payable in the five-year period from 1969–70 to 1973–74 are to be allocated on the following basis: New South Wales $380,400,000; Victoria, $254,400,000; Queensland, $231,600,000; South Australia, $129,000,000; Western Australia, $200,400,000 and Tasmania $56,250,000. For details of previous legislation *see* earlier yearbooks.

Beef cattle roads. The States Grants (*Beef Cattle Roads*) *Act* 1968 provided for grants of $39,500,000, $9,500,000, and $1,000,000 for Queensland, Western Australia, and South Australia respectively for a further programme of beef cattle road construction over a period of seven years commencing from 1 July 1967.

Health reimbursement under Tuberculosis Act 1948. The *Tuberculosis Act* 1948 provided for the reimbursement by the Commonwealth of capital and maintenance expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis.

The *States Grants* (*Mental Health Institutions*) *Act* 1964–1967 authorised assistance to the States amounting to one-third of their total expenditure on building and equipping approved mental health institutions during the six years ending 30 June 1970.

Education

Payments to the States for universities were first introduced in 1951–52, and details of the States Grants (Universities) Acts under which they were continued are given in earlier issues of the Year Book (*see* No. 51 page 923 and No. 52 page 770). The *Universities* (*Financial Assistance*) *Act* 1966–1968 authorised grants totalling approximately $182,500,000 for the Commonwealth share of the agreed programme of development of State Universities for the years 1967 to 1969. (*See also* Chapter 20, Education, Cultural Activities, and Research.)

Colleges of Advanced Education. Under the States Grants (Advanced Education) Acts, the Commonwealth is providing financial assistance to the States for recurrent and capital expenditures of Colleges of Advanced Education.

The *States Grants* (*Science Laboratories*) *Act* 1968 extended for the three years ending 30 June 1971 the operation of the scheme outlined in Official Year Book No. 54 page 745. A total payment of $37.7m is provided for and not more than one-third may be authorised for payment before 30 June 1969 and two-thirds before 30 June 1970.

Grants for buildings and equipment for use in technical training in schools and colleges conducted by States only are provided for under the *States Grants* (*Science Laboratories and Technical Training*) *Act* 1964 and the *States Grants* (*Technical Training*) *Act* 1965–1966.

Under the *States Grants* (*Teachers Colleges*) *Act* 1967 the Commonwealth provided for a maximum 1967–1969 triennium $9,000,000 to support selected research projects.

Under the *States Grants* (*Teachers College*) *Act* 1967 the Commonwealth provided for a maximum amount of $24,000,000 over the three years ending 30 June 1970 for the construction and equipping of teachers colleges.

Under the *States Grants* (*Secondary School Libraries*) *Act* 1968 grants totalling $27m are to be made to the States over the three years commencing 1 January 1969 to finance buildings and associated capital facilities for libraries in government and non-government secondary schools.

The *States Grants* (*Pre-school Teachers Colleges*) *Act* 1968 provided for capital grants totalling $2.5m over the three financial years commencing 1968–69 for the purpose of increasing the physical capacity of approved pre-school teachers colleges.

Railway projects

The *Railway Agreement* (*New South Wales*) *Act* 1968 provided for a contribution of $10m towards the cost of improving the existing railway from Parkes to Broken Hill as a work necessary to provide a uniform gauge railway across Australia.

Other railway projects. The Commonwealth is also continuing to provide financial assistance to South Australia and Western Australia under its railway standardisation agreements with those two States.

Water resources

Investigation and measurement of water resources. The States Grants (*Water Resources Measurement*) *Act* 1967 authorised payments to the States of up to $4,500,000 during the three years ending 30 June 1970 to assist State programmes of water measurement and investigation of underground water resources.

Chowilla and Dartmouth Reservoirs. Investigations into and considerations of the feasibility and cost of alternative storage and hydro-electric facilities are being continued by contracting Governments under the River Murray Waters Agreement.

Fairbairn Dam. The Queensland Grant (*Maraboon Dam*) *Act* 1968 provided for grants to Queensland of up to $20,000,000 for the construction of a dam on the Nogoa River near Emerald.

Copeton Dam. Commonwealth grants up to $20,000,000 will be made to New South Wales under the *New South Wales Grant* (*Gwydir River Dam*) *Act* 1969 for the construction of a dam on the Gwydir River near Copeton.

King River Dam. Under the *Victoria Grant (King River Dam) Act* 1969 the Commonwealth is providing grants of up to $4,000,000 to Victoria for the construction of a dam on the King River south of Cheshunt.

Tailem Bend to Keith Pipeline. The construction of a pipeline and certain associated works to carry water from Tailem Bend to Keith in South Australia is being assisted financially by provision of grants up to $6,000,000 under the *South Australia Grant (Tailem Bend to Keith Pipeline) Act* 1969.

Ord River Irrigation Project. The Western Australia (Ord River Irrigation) Act 1968 provided for financial assistance to Western Australia on the basis of grants for dam construction and interest-bearing loans in respect of the irrigation works.

River Murray Salinity reduction. The *Victoria Grant (River Murray Salinity) Act* 1968 provides for grants to Victoria of up to $3,600,000 for two salinity reduction projects on the River Murray.

Flood mitigation, New South Wales. Commonwealth payments under the *New South Wales Grant (Flood Mitigation) Act* 1964–1968 are limited to $8,000,000 in respect of flood mitigation works on the Macleay, Clarence, Richmond, Tweed, Shoalhaven, and Hunter Rivers. The Commonwealth grants will match State expenditure which, in turn, will be in a prescribed ratio to local authority expenditure on flood mitigation works.

Blowering Reservoir, New South Wales. The Blowering Reservoir was constructed at the expense of the State of New South Wales mainly by the Snowy Mountains Hydro-electric Authority, and the Commonwealth is financing half the cost in the form of repayable interest-bearing loans to that State.

Under the *Western Australia (South-west Region Water Supplies) Agreement Act* 1965, the Commonwealth is providing financial assistance of up to $10,500,000 by way of interest-bearing loans to Western Australia to accelerate works undertaken by the State to extend the comprehensive water supply scheme in the south-west portion of the state.

Other specific purpose payments

Brigalow lands. Under the Brigalow Lands Agreement Acts Commonwealth advances to the State of Queensland for specified works associated with the production of beef cattle and other primary products in the Fitzroy River Basin and the supply of beef for export were fixed at an overall limit of $23,000,000. Repayments over a twenty-year period commenced in 1968 in respect of advances made prior to 1 July 1967 and in 1971 in respect of advances made after 1 July 1967.

Development of Exmouth township, Western Australia. The Commonwealth has assisted the Western Australian Government in financing the cost of developing a township at Exmouth in connection with the United States Naval Communications Station established at North West Cape.

Weipa development, Queensland. Under the *Weipa Development Agreement Act* 1965 the Commonwealth provided financial assistance of $3,270,000 during 1965–66 and 1966–67 to Queensland by way of interest-bearing advances to finance harbour works carried out at Weipa on Cape York Peninsula.

Natural gas pipeline, South Australia. Under the *Natural Gas Pipeline (South Australia) Agreement Act* 1967 the Commonwealth is providing a maximum of $15,000,000 by way of interest-bearing loans to help finance the construction of a pipeline to transport gas from natural gas fields at Gidgealpa and Moomba.

Softwood forestry. The *Softwood Forestry Agreement Act* 1967 authorised the Commonwealth to provide assistance during the five years ending 30 June 1971 for increased planting of softwood forests. Total assistance of the order of $20,000,000 is in the form of interest-bearing loans repayable over twenty-five years.

The *Tasmania Agreement (Hydro-Electric Power Development) Act* 1968 provided for interest-bearing loans with an overall limit of $47m to Tasmania for the financing of a five-year programme of accelerated hydro-electric development based on the commencement of development of the Gordon River area in the south west of the State.

Aboriginal Advancement. The *States Grants (Aboriginal Advancement) Act* 1968 provided for the payment to the States of grants totalling $3,650,000 in 1968–69 and $5 320,000 in 1969–70 for Aboriginal advancement particularly in the fields of housing, education and health. A loan of $350,000 is to assist in the development of an irrigation project at Bamaga in the far north of Cape York for the benefit of the Aborigines living in the area.

Home care programme and nursing homes. Information on the range of services which are provided mainly for aged persons and which are financed by the Commonwealth in association with the States is given in the chapters on Welfare Services and Public Health.

All Commonwealth funds: receipts

Commonwealth taxation

Taxation constitutes the main sources of Commonwealth revenue, accounting for 87.7 per cent in 1968–69. The following tables on pages 555–7 show details of taxation receipts from each source during the years 1964–65 to 1968–69 and summarised information on their proportions of the totals. For detailed information on taxes on income *See* separate section at end of this chapter, pages 586–95.

ALL COMMONWEALTH FUNDS: TAXATION RECEIPTS, 1964-65 TO 1968-69

($'000)

Source of receipts	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Income tax—					
Individuals	1,569,483	1,729,440	1,920,603	2,175,249	2,377,406
Companies	709,044	801,105	784,544	836,664	1,006,543
Dividend (withholding)	16,039	17,247	22,708	21,716	28,303
Interest (withholding)	. .	. .	. .	910	4,456
Customs	268,400	270,871	274,873	312,220	346,264
Excise	631,212	751,927	806,448	855,168	902,307
Sales tax	362,825	370,005	380,657	416,626	494,090
Pay-roll tax	150,078	161,943	172,232	184,416	205,568
Estate duty	41,531	36,124	41,534	54,717	60,726
Gift duty	7,308	6,195	7,658	8,543	9,376
Primary production taxes and charges	19,515	28,836	30,524	31,348	33,408
Stevedoring industry charge	10,411	9,531	9,758	14,259	14,480
Broadcasting stations' licence fees	226	218	209	299	310
Television stations' licence fees	28	1,620	963	1,144	1,392
Other	2,214	2,340	3,149	3,302	4,200
Total	**3,788,314**	**4,187,402**	**4,455,861**	**4,916,582**	**5,488,829**

COMMONWEALTH TAXATION: PROPORTION OF EACH CLASS TO TOTAL NET COLLECTIONS, 1964-65 TO 1968-69

(Per cent)

Type of tax	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Income taxes	60.5	60.8	61.2	61.7	62.2
Customs	7.1	6.5	6.2	6.4	6.3
Excise	16.6	18.0	18.1	17.4	16.4
Sales tax	9.6	8.8	8.5	8.5	9.0
Pay-roll tax	4.0	3.9	3.9	3.8	3.7
Estate duty	1.1	0.9	0.9	1.1	1.0
Gift duty	0.2	0.1	0.2	0.2	0.2
Primary production taxes and charges	0.5	0.7	0.7	0.6	0.6
Stevedoring industry charge	0.3	0.2	0.2	0.3	0.3
Other	0.1	0.1	0.1	0.1	0.1
Total taxation	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Customs and excise receipts

CUSTOMS DUTIES ACCORDING TO BRUSSELS TARIFF DIVISIONS, 1965-66 TO 1968-69
($'000)

Brussels Tariff Division	*Source of receipts*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
1	Live animals; animal products	1,155	1,040	911	1,164
2	Vegetable products	1,755	1,797	1,268	1,831
3	Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes	1,923	2,440	1,578	1,191
4	Prepared foodstuffs; beverages, spirits and vinegar; tobacco	43,656	47,149	51,278	53,742
5	Mineral products	19,394	9,488	5,688	5,606
6	Products of the chemical industry and allied industries	10,420	12,340	11,438	12,995
7	Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof; rubber, synthetic rubbers, factice and articles thereof	11,781	12,278	15,457	16,838
8	Raw hides and skins, leather, furskins and articles thereof; saddlery and harness; travel goods, handbags and similar containers; articles of gut (other than silk-worm gut)	1,962	2,409	2,688	2,906
9	Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto and of other plaiting materials; basketware and wickerwork	6,627	6,902	8,111	7,941
10	Paper-making material; paper and paper-board and articles thereof	6,838	7,545	8,437	9,778
11	Textiles and textile articles	34,952	38,019	44,447	46,865
12	Footwear, headgear, umbrellas, sunshades, whips, riding-crops and parts therefor; prepared feathers and articles made therewith; artificial flowers; articles of human hair; fans	3,193	4,362	5,760	6,658
13	Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products; glass and glassware	7,272	7,346	8,343	9,418
14	Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin	1,187	1,200	1,375	1,344
15	Base metals and articles of base metal	18,606	18,321	21,303	24,659
16	Machinery and mechanical appliances; electrical equipment; parts therefor	47,052	44,813	55,172	65,506
17	Vehicles, aircraft, and parts therefor; vessels and certain associated transport equipment	25,575	29,280	39,212	46,270
18	Optical, photographic, cinematographic, measuring, checking, precision, medical and surgical instruments and apparatus; clocks and watches, musical instruments; sound recorders and reproducers; television image and sound recorders and reproducers, magnetic; parts therefor	8,880	9,054	11,141	12,246
19	Arms and ammunition; parts therefor	466	473	327	334
20	Miscellaneous manufactured articles	8,537	8,422	8,684	9,438
21	Works of art, collector's pieces and antiques	−5	5	3	13
	Miscellaneous	4,366	4,613	3,970	4,195
	Primage	5,420	5,799	5,668	5,341
	Total, customs duties and primage	*271,010*	*275,095*	*312,258*	*346,281*
	Less Remission of duty under special circumstances	139	222	38	17
	Total	**270,871**	**274,873**	**312,220**	**346,264**

COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS 1964-65 TO 1968-69

($'000)

Source of revenue	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Beer	260,214	302,104	320,832	338,614	355,001
Potable spirits	19,207	22,871	24,872	26,783	24,440
Tobacco	17,795	18,070	17,028	16,460	15,711
Cigars and cigarettes	171,073	199,740	200,901	214,315	225,262
Cigarette papers	901	858	824	836	833
Petrol	148,194	190,670	220,617	234,142	253,007
Diesel fuel	9,099	13,597	15,480	18,256	21,520
Matches	2,276	2,267	2,167	2,227	2,384
Playing cards	106	114	112	121	127
Coal	599	621	634	642	820
Cathode ray tubes	605	. .	. .	. .	. .
Canned fruit	1,092	1,097	1,263	1,738	1,698
Miscellaneous	1	−73	1,692	1,121	1,625
All items	*631,162*	*751,936*	*806,423*	*855,255*	*902,428*
Diesel fuel taxation	309	265	362	304	274
Less rebates	229	241	298	356	352
	80	*24*	*64*	*−52*	*−78*
Other rebates	−30	−33	−39	−34	−43
Total	**631,212**	**751,927**	**806,448**	**855,168**	**902,307**

In addition to these details of collections of customs and excise duties, further information is given in Chapter 11, Overseas Transactions.

Primary production taxes and charges

The following section shows current rates of charges, and receipts from, primary production and other charges during the years 1964–65 to 1968–69. Further information relating to primary production charges is given in Chapter 23, Rural Industry.

Wool tax. The present rate of wool tax is 1 per cent of the sale value of the wool and this rate has operated since 1 August 1970.

Wheat export charge and wheat tax. The *Wheat Export Charge Act* 1968 provided for an export charge on wheat and wheat products for the seasons 1968–69 to 1972–73 inclusive. The charge which may be levied is the excess of the export price over the sum of the guaranteed price and five cents per bushel, the maximum charge being 15 cents per bushel. Under the *Wheat Industry Stabilization Act* 1968, to which the Wheat Export Charge Act is complementary, the Commonwealth Government guaranteed a return to wheatgrowers of 145 cents per bushel for the 1968–69 Pool and 145.9 cents for the 1969–70 Pool for fair average quality bulk wheat, free on board vessel, on up to 200 million bushels of wheat harvested each season exported from Australia. Collections from the wheat export charge are paid into the Wheat Prices Stabilization Fund, out of which payments are made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price in respect of exports up to 200 million bushels. When the fund is exhausted (as it was at 30 June 1968) payments will be made as necessary from the Consolidated Revenue Fund. As the return from exports has been below the guaranteed price, there have been no collections of the wheat export charge since the 1956–57 (No. 20) Pool, when $3,178,000 was collected. The *Wheat Tax Act* 1957–1966 imposes a tax of three-tenths of a penny (0.25 cents) for each bushel of wheat delivered to the Wheat Board on or after 1 October 1965. (*See also* Chapter 23, Rural Industry.)

Miscellaneous export charges. These consist of charges levied on exports of apples and pears (*Apple and Pear Export Charges Act* 1938–1968), canned fruits (*Canned Fruits Export Charges Act* 1926–1966), dried fruits (*Dried Fruits Export Charges Act* 1924–1965), and eggs (*Eggs Export Charges Act* 1947–1965).

Stevedoring Industry Charge. The rates in operation since 27 November 1967 have been as follows:

Class of Waterside Worker	*Rate*
	$
A	16.85 per man-week
B	0.80 per man-hour
C	0.55 per man-hour

Class A waterside workers are regular waterside workers on weekly hire in permanent and non-permanent continuous ports. Class B are regular casual workers in non-permanent continuous ports and Class C are regular casual workers in non-continuous and seasonal ports and irregular workers in all ports.

Tobacco charge. The rates of tobacco charge currently in force are as follows:

(*a*) in respect of leaf sold to a manufacturer:
  (i) one half cent per pound of leaf, payable by the grower or other persons who own the leaf immediately before sale, and
  (ii) one cent per pound of leaf, payable by the manufacturer;
(*b*) in respect of leaf grown and used by grower-manufacturers:
  (i) where the manufacturer grows nine-tenths of the leaf used by him—one half cent per pound of leaf.
  (ii) in other cases—one cent per pound of leaf.

(*See also* the chapter, Rural Industry.)

Dairy produce and butterfat levies. The *Butter Fat Levy Act* 1965–1966, and the *Dairy Produce Export Charge Act* 1924–1962 provide for a maximum rate of $0.60 per hundredweight of butterfat content of specified dairy produce and for the apportionment of the proceeds between overseas marketing (40 per cent), local promotion (40 per cent), and research (20 per cent). (*See also* Chapter 23, Rural Industry).

Canning-fruit charge. The present rate of canning-fruit charge is $0.75 per ton of fruit. This rate has operated since 1 December 1964.

Honey levy. The current rate of levy on honey sold for domestic consumption in Australia is four-tenths of a cent per pound.

Livestock slaughter levy. The present operative rate of levy for cattle is 33 cents per head of which 20 cents is for beef research, 1 cent for research into the meat processing industry and 12 cents to finance the operations of the Australian Meat Board. For sheep and lambs the levy is 3.1 cents per head and the components are 1.75 cents for sheep meat research, 0.1 cents for research into the meat processing industry and 1.25 cents for the Australian Meat Board.

Dried Vine Fruits Contributory Charge. This charge was discontinued after it was levied in respect of 1968 season fruits.

Poultry industry levy. The rates of levy for each hen kept for commercial purposes (the first twenty hens being exempt) were 4.0 cents per fortnight from 1 July 1969 to 9 June 1970, 2.0 cents per fortnight from 10 June 1970 to 30 June 1970 and 4.0 cents per fortnight from 1 July 1970.

Meat chicken levy. The rate of levy is 10 cents per hundred meat chickens hatched, payable by any hatchery with 20,000 chickens or more.

COMMONWEALTH PRIMARY PRODUCTION TAXES AND CHARGES RECEIPTS, 1964-65 TO 1968-69

($'000)

Source of revenue	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Apple and pear export charge	213	272	207	211	280
Butter fat levy	..	1,812	2,120	1,936	1,956
Canned fruit export charge	176	223	224	326	330
Canning fruit charge	102	120	116	123	164
Cattle slaughter levy	298	..	..	..	..
Dairy produce export charge	674	5	..	..	..
Dairy produce levy	817	31	..	..	..
Dried fruits export charge	155	193	159	143	139
Dried vine fruits contributory charge—					
Currants	..	72	52	..	25
Raisins	..	165	..	42	..
Sultanas	..	1,530	..	139	..
Egg export charge	82	20	5	4	4
Honey levy	104	101	92	96	106
Livestock slaughter levy—					
Cattle	1,157	1,441	1,315	1,314	1,351
Sheep and lambs	299	399	809	1,063	1,027
Meat export charge	103	..	..	..	..
Poultry industry levy	..	6,000	8,859	10,840	10,785
Tobacco charge	354	369	239	427	313
Wheat tax	720	591	1,081	633	1,276
Wine export charge	274	288	380	357	379
Wool tax	13,987	15,201	14,869	13,694	15,272
Total	**19,515**	**28,836**	**30,524**	**31,348**	**33,408**

Other Commonwealth taxation

Taxes other than customs and excise duties, the various export charges and some taxes on particular commodities are assessed and collected by the Commissioner of Taxation. The Commissioner's organisation comprises a head office in Canberra and an office in each State.

Details of the purposes and rates applicable to the main forms of Commonwealth taxation, excluding customs and excise, currently imposed and of current legislation are given in the following pages. Historical information is given in Year Book No. 51, pages 905–10, and in earlier issues. Taxes on income are treated separately on pages 586–95 and customs and excise duties are dealt with in Chapter 11, Overseas Transactions. For detailed statistics relating to Commonwealth income taxes, estate duty, gift duty, and sales tax *see* the annual bulletin *Commonwealth Taxation Assessments.*

Sales tax. The general rate of tax levied on all goods other than those specified in the schedules to the *Sales Tax (Exemptions and Classifications) Act* 1935–1968 was raised from 12½ per cent to 15 per cent from 14 August 1968 and goods subject to special rates are taxed at either 2½ per cent or 25 per cent.

Particulars of the net amount of sales tax payable and the sales of taxable and exempt goods in each State for 1968-69 are given in the following table. The figures relate to sales during the period 1 July to 30 June. The figures for sales tax payable differ from those for net collections shown on page 555 because the latter include some adjustments in respect of earlier tax years and relate to tax payable on returns lodged during the year, which in general cover sales for the period June to May.

COMMONWEALTH SALES TAX AND AMOUNT OF SALES: STATES AND TERRITORIES 1968-69

($'000)

	N.S.W. (including A.C.T.)	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Net sales on which sales tax was payable at—								
2½ per cent .	285,416	245,404	82,054	56,262	50,172	14,591	717	734,616
12½ per cent .	91,734	64,304	27,130	16,109	17,659	4,143	577	221,656
15 per cent .	634,117	423,968	182,090	116,646	117,484	26,104	3,838	1,504,247
25 per cent .	375,171	262,882	102,385	74,143	72,110	18,690	1,178	906,559
Total net sales	*1,386,437*	*996,557*	*393,659*	*263,160*	*257,425*	*63,528*	*6,310*	*3,367,078*
Sales of exempt goods by registered persons . . .	3,778,948	2,453,787	1,144,885	675,206	619,587	232,511	27,791	8,932,715
Total sales of taxable and exempt goods .	**5,165,385**	**3,450,344**	**1,538,544**	**938,366**	**877.012**	**296,039**	**34,101**	**12,299,791**
Sales tax payable .	207,512	143,489	58,352	39,453	39,112	9,471	960	498,349

Sales of taxable and exempt goods and sales tax payable for Australia are shown in the following table for the years 1964–65 to 1968–69.

COMMONWEALTH SALES TAX AND AMOUNT OF SALES AUSTRALIA, 1964-65 TO 1968-69

($ million)

Year of sale	*Net sales on which sales tax was payable*	*Sales of exempt goods by registered persons*	*Total sales of taxable and exempt goods*	*Sales tax payable*
1964–65 . .	2,589	6,819	9,408	365
1965–66 . .	2,645	7,112	9,757	367
1966–67 . .	2,838	7,802	10,640	386
1967–68 . .	3,095	8,394	11,489	424
1968–69 . .	3,367	8,933	12,300	498

In the foregoing tables sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the *Sales Tax (Exemptions and Classifications) Act* 1935–1968. The figures shown do not represent the total sales of all commodities, as vendors trading only in exempt goods are not required to be registered, and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e. goods sold by one registered taxpayer to another registered taxpayer) are excluded.

Pay-roll tax came into operation on 2 May 1941 and provided for the imposition of a tax on wages accruing after 30 June 1941. The relevant laws are *Pay-roll Tax Assessment Act* 1941–1969, *Pay-roll Tax Act* 1941–1966, and Pay-roll Tax Regulations. From 1 September 1957 pay-roll tax of 2½ per cent (rate unchanged since its inception) was payable by employers on all wages and salaries in excess of $400 a week or $20,800 per annum. Collections of pay-roll tax amounted to $184,416,000 in 1967–68 and $205,568,000 in 1968–69.

The *Payroll Tax Assessment Act* 1968 continues for five years until 30 June 1973, with some important modifications, the operation of the payroll tax rebate which was introduced in 1961 as an export incentive and which expired on 30 June 1968.

A rebate of payroll tax is available in certain circumstances to employers who increased the level of their annual export sales above their average annual export sales in a base period. For export sales up to 30 June 1968 the base period was the two years ended 30 June 1960. From 1 July 1968 the base period is represented by the first three years of the eight year period preceding the rebate year. A special formula applies in the case of a new exporter by which a person who did not export in any of the three years ended on 30 June 1961 progressively reaches the same position as an established exporter. The rebate is equivalent to 10.5 per cent of the increase in exports for the rebate year over the average annual exports in the base period.

Estate duty. Under the *Estate Duty Assessment Act* 1914–1967 estate duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula: (*a*) where the whole of the estate passes to the widow or widower, children (including adopted children, step-children and ex-nuptial children), or grand-children of the deceased, $20,000 decreasing by $2 for every $8 by which the value exceeds $20,000; (*b*) where no part of the estate passes to the widow or widower, children or grand-children, $10,000 decreasing by $2 for every $8 by which the value exceeds $10,000; and (*c*) where only part of the estate passes to the widow or widower, children or grand-children, an amount calculated proportionately under (*a*) and (*b*). Special exemptions are also allowed in respect of estates of defence personnel who die on active service or within three years of termination of their active service from injuries received or diseases contracted while on active service, and prescribed personal property held in Australia by certain United States personnel who are in Australia solely for purposes connected with projects of the United States Government. A rebate of duty may be allowable if the deceased was a beneficiary in an estate (upon which duty is payable or has been paid) of a person who predeceased him by not more than five years.

The rates of duty levied under the *Estate Duty Act* 1914–1966 increase as the value of the estate for duty increases, as follows: does not exceed $20,000, 3 per cent; $20,001 to $40,000, 3 per cent to 6 per cent; $40,001 to $240,000, 6 per cent to 26 per cent; $240,001 to $1,000,000, 26 per cent to 27.9 per cent; $1,000,000 or more, 27.9 per cent.

Particulars of the number and value of estates and duty assessed, for each of the assessment years 1964–65 to 1968–69, are given in the following table.

COMMONWEALTH ESTATE DUTY ASSESSMENTS, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Estates	No.	12,423	10,948	12,056	14,489	14,105
Gross value as assessed	$'000	602,216	587,488	664,034	840,226	841,462
Deductions(*a*)	,,	116,821	117,304	131,930	168,106	162,834
Statutory exemption	,,	92,641	109,468	127,602	155,800	152,206
Dutiable value	,,	392,754	360,715	404,502	516,320	526,422
Net duty assessed	,,	40,935	38,410	43,817	57,711	64,045
Average dutiable value	$	31,615	32,948	33,552	35,635	37,322
Average duty assessed per estate	$	3,295	3,508	3,634	3,983	4,541

(*a*) Debts, Exempt Estate and State Probate Succession Duties.

Gift duty. The *Gift Duty Act* 1941–1966 and the *Gift Duty Assessment Act* 1941–1967 impose a gift duty on gifts which are defined as dispositions of property made otherwise than by will, without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty. However, if a return is furnished by the donor, the donee is relieved of this obligation.

Certain exemptions from duty are provided, the more important being: payments to an employees' superannuation or like fund; retiring allowances or gratuities granted to employees; gifts to non-profit institutions or organisations; gifts to the Commonwealth or a State; and small gifts not exceeding $100.

The rate of gift duty applicable to any particular gift is fixed by reference to the total value of all gifts made by the same donor within the period of eighteen months before and eighteen months after the time of making that gift. Where the total value of all gifts as defined does not exceed $4,000 no duty is payable; The present rates of duty are (*a*) $4,001 to $20,000, 3 per cent provided that the gift duty payable shall not exceed one half of the amount by which the gift exceeds $4,000 or a proportionate amount where more than one gift is involved; (*b*) $20,001 to $40,000, 3 per cent to 6 per cent; (*c*) $40,001 to $240,000, 6 per cent to 26 per cent; (*d*) $240,001 to $1,000,000 and over, 26 per cent to 27.9 per cent.

Particulars of the number of gift duty assessments, value of gifts as assessed and duty assessed for each of the assessment years 1964–65 to 1968–69 are given in the following table.

COMMONWEALTH GIFT DUTY ASSESSMENTS, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Assessments	No.	8,306	7,516	8,946	9,293	10,053
Value as assessed	$'000	124,709	111,658	130,771	150,322	163,476
Duty assessed	,,	6,870	5,911	7,633	8,701	9,501

Australian Capital Territory Stamp Duty and Tax.

Stamp Duty and Tax on a range of instruments and transactions connected with the Australian Capital Territory, including Jervis Bay, came into operation on 1 July 1969.

The Australian Capital Territory Taxation (Administration) Act 1969 provides for the administrative procedures necessary for assessment and collection of duty and tax.

Six additional Acts specify the range of dutiable instruments or transactions subject to duty or tax which are as under:

Cheques and Other Bills of Exchange and Promissory Notes: Five cents on each.

Hire Purchase Agreements: 1¼ per cent of the purchase price (if over $100) after excluding any deposit and any terms or insurance charges.

Insurance Business: Five per cent of premiums other than for life assurance, third party motor vehicle insurance or workers' compensation insurance.

Sales and Purchases of Marketable Securities: 40 cents in each $100 or part thereof. Where the value is less than $100 the rate is 10 cents in each $25 or part thereof.

Conveyances, grants and assignments of leases of land: $1 for each $100 or part thereof of the value of the interest transferred where a lease is granted by a person other than the Commonwealth, in addition duty is payable at 30 cents for each $100 or part thereof of the total rent payable for the specified period for which a lease is given.

A general exemption is provided from all duties for public hospitals, public benevolent institutions, religious institutions, public educational institutions, visiting diplomatic personnel and their families. The total amount collected as Australian Capital Territory Stamp Duty and Tax for the year 1969–70 was $1,969,000.

STATE FINANCE

Functions of State Governments

In comparing the financial results of the State allowances must be made for the various functions discharged by the respective State Governments and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult owing to the fact that functions which in one State are assumed by the central government are in another delegated to local government or semi-government bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the central government. Care is needed, therefore, in making comparisons, and the particulars contained in this chapter should be read with those contained in the chapter, Local Government.

Accounts of State Governments

The various financial transactions of the States are in each case concerned mainly with one or other of three funds—the Consolidated Revenue Fund, the Trust Fund and the Loan Fund.

All revenue (except certain items paid into special funds) collected by a State is paid into its *Consolidated Revenue Fund*, from which payments are made under authority of an annual Appropriation Act passed by the legislature, or by a permanent appropriation under a special Act. Figures relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These undertakings are: railways, tramways and omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The *Trust Fund* comprises all moneys held in trust by the Government and includes such items as superannuation funds, road funds, insurance companies' deposits, etc.

The *Loan Fund* is debited with all loan moneys raised for the State and credited with the expenditure therefrom on public works or other purposes.

Inter-relation of Commonwealth and State finances

A statement in some detail, covering the inter-relation of Commonwealth and State finances during the period from the inception of federation to the passing of the *Financial Agreement Act* 1928, was published in Year Book No. 22, pages 379–80. Changes in the financial relations between the Commonwealth and States since the passing of the Financial Agreement Act have been described in issues of the Year Book from year to year.

State Consolidated Revenue Fund: expenditure

The principal heads of State expenditure from Consolidated Revenue Funds are: (*a*) interest, exchange and debt redemption charges in connection with debt; (*b*) working expenses of business undertakings; (*c*) education; (*d*) health and charitable expenditure; (*e*) justice; (*f*) police; (*g*) penal establishments; and (*h*) all other expenditure, including expenditure on public works, lands and surveys, agriculture and forestry, legislative and general administration, pensions, and miscellaneous.

In 1968–69 education constituted 26.0 per cent of the total expenditure from the State Consolidated Revenue Funds; the working expenses of railways, tramways, and omnibuses, 19.2 per cent; debt charges, 16.9 per cent; charitable, public health and hospitals, 13.8 per cent; and law, order and public safety, 6.1 per cent.

Total expenditure

The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1964–65 to 1968–69 are shown in the following table.

STATE CONSOLIDATED REVENUE FUND EXPENDITURE, 1964-65 TO 1968-69

Year	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
			EXPENDITURE ($'000)				
1964–65 . .	734,160	480,668	271,215	216,803	184,840	77,447	1,965,133
1965–66 . .	776,314	516,689	298,022	235,650	206,665	86,917	2,120,259
1966–67 . .	833,832	559,595	323,523	250,717	228,174	94,414	2,290,254
1967–68 . .	887,618	604,122	356,249	267,404	249,909	103,302	2,468,603
1968–69 . .	970,330	666,645	388,777	286,895	276,137	110,350	2,699,134
			PER HEAD OF POPULATION ($)				
1964–65 . .	177.22	153.26	166.70	206.07	226.20	211.39	176.38
1965–66 . .	184.41	161.77	179.52	217.82	246.83	235.17	186.76
1966–67 . .	195.15	172.19	191.65	227.10	264.66	252.50	198.28
1967–68 . .	204.18	182.93	207.38	239.13	280.00	272.30	209.96
1968–69 . .	219.02	198.65	221.97	252.64	297.27	286.10	225.16

(*a*) *See* page 562 for transactions included.

Details of expenditure

The following tables show the total expenditure and expenditure per head of population for each of the principal items. For further information on the finances of the various types of business undertakings in the States *see* the chapters, Transport, Communication and Travel, and Local Government of this Year Book.

STATE CONSOLIDATED REVENUE FUND EXPENDITURE: DETAILS, 1968-69

	N.S.W. (*a*)	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.* (*b*)	*Total*
			EXPENDITURE ($'000)				
Debt (interest, exchange, debt redemption, etc.)	123,286	119,514	63,062	69,907	47,343	32,912	456,115
Railways	191,748	104,360	98,455	32,764	51,766	3,576	482,669
Tramways and omnibuses	32,315	..	..	..	935	1,030	34,280
Harbours and rivers, etc.	17,582	1,580	..	3,684	2,801	41	25,688
Water supply, sewerage, irrigation and drainage	..	10,838	..	12,806	11,469	850	35,963
Other business and industrial undertakings	..	693	56	919	4,425	93	6,186
Education	254,459	202,499	87,956	69,792	58,403	29,812	702,921
Health and charitable	128,344	93,732	56,425	36,991	41,176	15,706	372,374
Justice	17,117	6,014	5,419	2,219	2,225	1,132	34,126
Police	38,344	26,486	16,320	9,133	7,927	3,734	101,944
Penal establishments	9,983	3,997	2,294	2,403	3,160	961	22,798
Public safety	2,683	144	1,810	452	616	567	6,272
All other expenditure	154,470	96,787	56,980	45,826	43,802	19,936	417,802
Total	**970,330**	**666,645**	**388,777**	**286,895**	**276,137**	**110,350**	**2,699,134**
			PER HEAD OF POPULATION ($)				
Debt (interest, exchange, debt redemption, etc.)	27.82	35.61	36.00	61.56	51.06	85.33	38.05
Railways	43.28	31.10	56.21	28.85	55.73	9.27	40.26
Tramways and omnibuses	7.29	..	..	..	1.01	2.67	2.86
Harbours and rivers, etc.	3.97	0.47	..	3.24	3.02	0.11	2.14
Water supply, sewerage, irrigation and drainage	..	3.23	..	11.28	12.35	2.20	3.00
Other business and industrial undertakings	..	0.21	0.03	0.81	4.76	0.24	0.52
Education	57.44	60.34	50.22	61.46	62.87	77.29	58.64
Health and charitable	28.97	27.93	32.22	32.57	44.33	40.72	31.06
Justice	3.86	1.79	3.09	1.95	2.40	2.93	2.85
Police	8.66	7.89	9.32	8.04	8.53	9.70	8.50
Penal establishments	2.25	1.19	1.31	2.12	3.40	2.49	1.90
Public safety	0.61	0.04	1.03	0.40	0.66	1.47	0.52
All other expenditure	34.87	28.84	32.53	40.35	47.15	51.69	34.85
Total	**219.02**	**198.65**	**221.97**	**252.64**	**297.27**	**286.10**	**225.16**

(*a*) *See* page 562 for transactions included. (*b*) Tasmanian transport services are under the separate control of semi-government authorities. Figures shown for relevant items represent payments to the authorities.

TOTAL STATE CONSOLIDATED REVENUE FUND EXPENDITURE: DETAILS
1964-65 TO 1968-69

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Debt (interest, exchange, debt redemption, etc.)	343,990	370,551	397,077	425,108	456,115
Railways, tramways and omnibuses (working expenses)	443,947	451,226	467,200	489,570	516,949
Harbours and rivers, etc.	20,652	19,445	20,580	23,629	25,688
Water supply, sewerage, irrigation and drainage	24,840	27,301	29,269	32,967	35,963
Other business and industrial undertakings	6,260	5,235	5,183	5,965	6,186
Education	457,333	499,733	552,836	620,987	702,921
Health and charitable	260,508	285,587	309,569	330,947	372,374
Justice	24,187	26,286	29,029	32,277	34,126
Police	72,981	77,102	87,616	94,448	101,944
Penal establishments	14,204	15,258	17,436	19,924	22,798
Public safety	4,038	4,400	4,644	5,143	6,272
All other expenditure	292,194	338,135	369,814	387,639	417,802
Total	**1,965,133**	**2,120,259**	**2,290,254**	**2,468,603**	**2,699,134**

State Consolidated Revenue Fund: receipts

The principal sources of State revenue are: (*a*) taxation; (*b*) the business undertakings controlled by the State Governments; (*c*) sale of and rental from Crown lands; (*d*) interest on advances; (*e*) payments by the Commonwealth Government under the Financial Agreements, Special Grants and Financial Assistance Acts, etc.; (*f*) Commonwealth National Welfare Fund payments; and (*g*) miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue to the Consolidated Revenue Funds for the States as a whole in the year 1968–69 was Commonwealth payments under financial assistance and other grants (40.6 per cent of the total revenue). Next in magnitude was the group of business undertakings (23.7 per cent), the principal contributors being the Government railways and tramways, followed by taxation receipts (20.6 per cent). More than one-quarter of the total State taxation collections are not paid into Consolidated Revenue Funds, however, but into trust and other funds (*see* pages 568–9). Of the remaining sources of revenue, interest (n.e.i.) constituted 4.1 per cent, land revenue 2.5 per cent, and National Welfare Fund payments 1.1 per cent.

Total receipts

The following table shows particulars of the total receipts and the receipts per head of population of the Consolidated Revenue Funds of the several States.

STATE CONSOLIDATED REVENUE FUND RECEIPTS, 1964-65 TO 1968-69

Year	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
			RECEIPTS ($'000)				
1964–65	729,091	480,668	267,139	214,181	180,143	75,828	1,947,050
1965–66	771,627	508,554	294,502	228,816	206,655	84,896	2,095,051
1966–67	830,685	559,595	323,781	250,823	228,146	93,842	2,286,873
1967–68	888,077	601,328	357,219	264,544	250,738	101,452	2,463,357
1968–69	966,743	664,183	387,866	287,355	275,081	106,656	2,687,884
			PER HEAD OF POPULATION ($)				
1964–65	176.00	153.26	164.20	203.58	220.45	206.97	174.76
1965–66	183.30	159.22	177.40	211.50	246.81	229.70	184.54
1966–67	194.42	172.19	191.80	227.20	264.63	250.97	197.98
1967–68	204.29	182.09	207.95	236.57	280.93	267.42	209.51
1968–69	218.22	197.92	221.45	253.04	296.13	276.53	224.22

(*a*) *See* page 562 for transactions included.

STATE CONSOLIDATED REVENUE FUNDS

1968-69

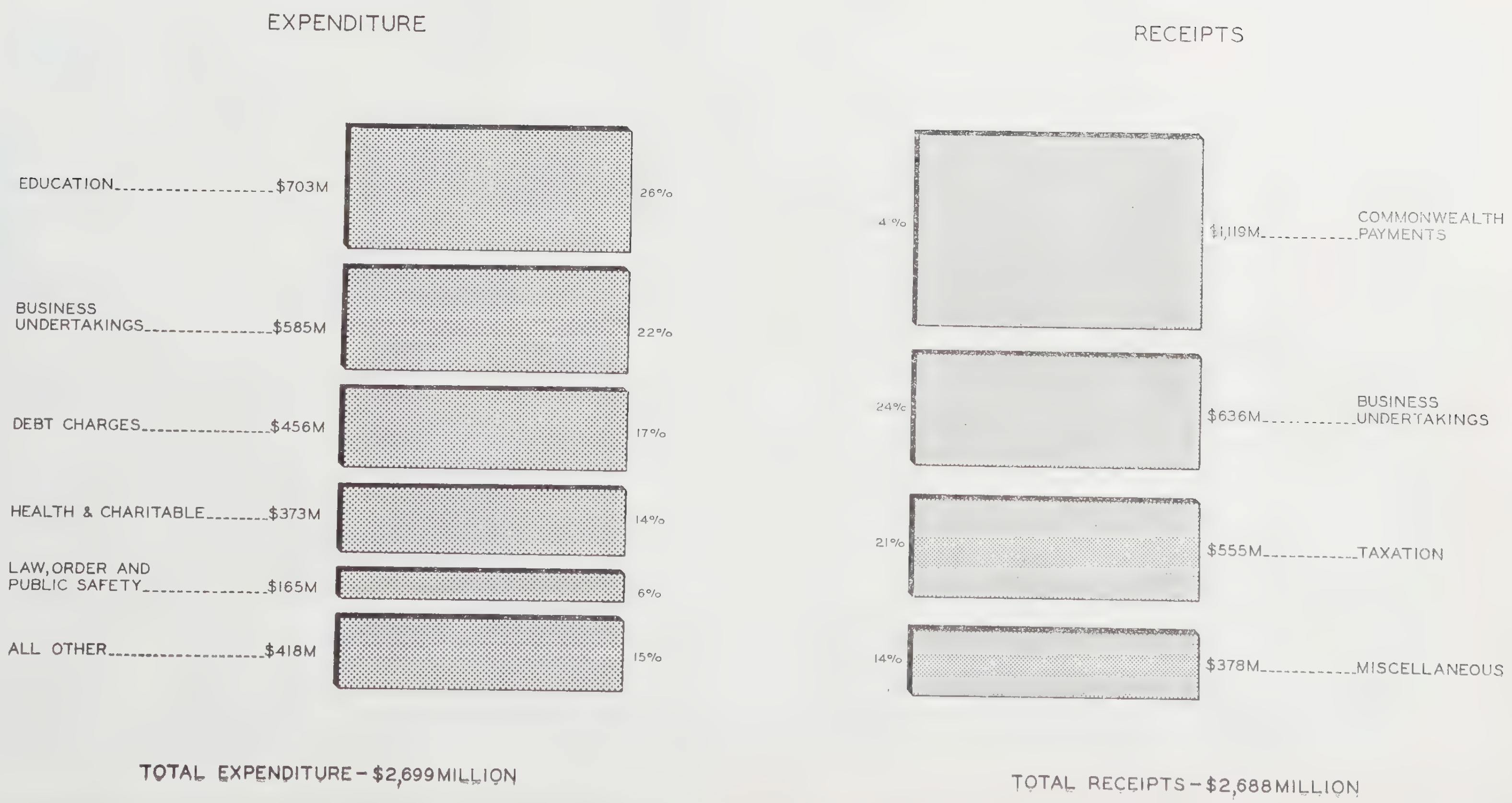


PLATE 35

Sources of revenue

Classifying the revenue of the several States in the manner indicated on page 565, particulars for the year 1968–69 were as follows.

STATE CONSOLIDATED REVENUE FUND RECEIPTS, BY SOURCE, 1968-69

Source of revenue	*N.S.W.* (*a*)	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.* (*b*)	*Total*
				RECEIPTS ($'000)			
Taxation(*c*)	197,858	182,574	64,671	49,872	42,772	17,149	554,896
Business undertakings	282,148	132,802	99,558	62,120	58,999	270	635,897
Lands	22,402	9,147	14,127	2,437	17,301	1,930	67,344
Interest, n.e.i.	9,948	26,493	18,917	22,566	14,176	18,172	110,272
Commonwealth grants(*d*)—							
Financial assistance	333,393	250,563	155,963	112,768	123,796	41,710	1,018,193
Other(*e*)	20,365	10,602	10,272	10,487	2,825	18,065	72,616
Commonwealth National Welfare Fund payments(*f*)	15,647	4,263	3,756	3,445	161	1,358	28,630
Miscellaneous	84,982	47,740	20,601	23,660	15,050	8,002	200,035
Total	**966,743**	**664,183**	**387,866**	**287,355**	**275,081**	**106,656**	**2,687,884**
				PER HEAD OF POPULATION ($)			
Taxation(*c*)	44.66	54.41	36.92	43.92	46.05	44.46	46.29
Business undertakings	63.69	39.57	56.84	54.70	63.51	0.70	53.05
Lands	5.06	2.73	8.07	2.15	18.63	5.00	5.62
Interest, n.e.i.	2.25	7.89	10.80	19.87	15.26	47.11	9.20
Commonwealth grants(*d*)—							
Financial assistance	75.25	74.67	89.05	99.30	133.27	108.14	84.94
Other(*e*)	4.60	3.16	5.86	9.23	3.04	46.84	6.06
Commonwealth National Welfare Fund payments(*f*)	3.53	1.27	2.14	3.03	0.17	3.52	2.39
Miscellaneous	19.18	14.23	11.76	20.83	16.20	20.75	16.69
Total	**218.22**	**197.92**	**221.45**	**253.04**	**296.13**	**276.53**	**224.22**

(*a*) *See* page 562 for transactions included. (*b*) Tasmanian transport services are under the separate control of semi-government authorities. (*c*) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections *see* next page. (*d*) Excludes Commonwealth payments paid to trust funds. (*e*) Includes payments under Financial Agreement, special grants, additional financial assistance, grants to universities, etc. (*f*) Consolidated Revenue Fund receipts only. Excludes payments to Trust Funds.

State receipts from taxation

In the tables on taxation collections in these paragraphs the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under Racing instead of under Stamp duties and Licences respectively.

Net taxation collections

The following tables show, for the year 1968–69, details of the collections by each State from the various types of tax in operation, irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and present a comprehensive statement of all taxation collections in each State. For local government taxation collections, *see* chapter 19.

STATE GOVERNMENT RECEIPTS FROM TAXATION: NET COLLECTIONS, BY TYPE OF TAX 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas*	*Total*
Probate and succession duties	52,156	46,801	19,969	9,131	6,297	3,029	134,383
Land tax	33,802	21,839	4,746	7,644	4,746	2,352	75,129
Liquor taxes	16,056	10,632	5,186	2,633	2,848	1,072	38,427
Lottery taxes	..	5,990	842	..	..	..	6,832
Poker machines tax	26,294	..	..	..	..	..	26,294
Racing taxes	18,366	17,373	6,096	2,773	3,802	199	48,609
Vehicle registration fees and taxes	44,276	46,062	21,984	12,625	6,987	4,890	136,824
Drivers', etc., licences and fees	8,102	3,493	1,440	1,067	1,479	515	16,096
Stamp duty (vehicle registration)	3,783	5,976	2,803	2,134	1,670	342	16,707
Road transport taxes	4,630	1,813	6,701	35	863	331	14,373
Road maintenance contributions	14,799	7,842	4,297	2,557	3,210	..	32,705
Third party insurance surcharges and duties	..	2,605	..	400	755	291	4,051
Fire Brigades contributions	600	..	4,124	..	..	..	4,724
Stamp duties, n.e.i.	74,768	73,619	20,212	12,713	21,267	3,996	206,575
Licence and registration fees, n.e.i.	1,366	1,958	601	517	583	60	5,085
Other taxes	376	8,991	3,669	..	2,582	73	15,691
Total	**299,376**	**254,992**	**99,669**	**54,228**	**57,089**	**17,149**	**782,503**
of which—							
Paid to Consolidated Revenue Fund	197,858	182,574	64,671	49,872	42,772	17,149	554,896
Paid to Trust and other funds	101,518	72,418	34,998	4,356	14,316	..	227,606

In addition to the collections detailed above, the taxes in the following table were collected by other State authorities.

OTHER STATE AUTHORITIES TAXATION: NET COLLECTIONS, BY TYPE OF TAX 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Taxes paid to other government authorities—							
Fire Brigades contributions	8,193	6,231	..	931	1,504	661	17,520
Sugar cane assessment	..	..	784	..	..	..	784
Metropolitan improvement rate	..	5,686	..	..	..	..	5,686
Racing taxes	..	..	..	..	..	1,121	1,121
Vehicle registration fees and drivers' licences	..	..	..	..	..	−35	−35
Road transport taxes	..	..	..	..	..	77	77
Profits of State Lotteries	17,247	..	3,351	1,734	1,528	..	23,860
Total	**25,440**	**11,917**	**4,135**	**2,665**	**3,032**	**1,824**	**49,013**

The table hereunder shows, for the year 1968–69, the proportions of collections under individual classes of tax to total State taxation revenue.

ALL STATE AUTHORITIES RECEIPTS FROM TAXATION: PROPORTIONS OF INDIVIDUAL TAXES TO TOTAL, 1968-69

(Per cent)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Probate and succession duties	16.06	17.53	16.35	16.05	10.47	15.96	16.16
Land tax	10.41	8.18	4.57	13.44	7.89	12.40	9.04
Liquor taxes	4.94	3.98	5.00	4.63	4.74	5.65	4.62
Lottery(*a*), poker machines, racing taxes	19.06	8.75	9.91	7.92	8.87	6.96	12.83
Vehicle registration fees and taxes	13.63	17.26	21.18	22.19	11.62	28.30	18.39
Drivers', etc., licences and fees	2.49	1.31	1.39	1.87	2.46		
Stamp duty (vehicle registration)	1.17	2.24	2.70	3.75	2.78	1.80	2.01
Road transport taxes and road maintenance contributions	5.98	3.62	10.59	4.56	6.77	2.15	5.67
Third party insurance surcharges and duties	..	0.98	..	0.70	1.26	1.53	0.49
Stamp duties, n.e.i.	23.02	27.58	19.47	22.35	35.37	21.06	24.84
Other taxes, etc.	3.24	8.57	8.84	2.54	7.77	4.19	5.95
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

(*a*) Includes profits of State Lotteries.

The total amounts and the amounts per head raised from all sources of State taxation during the years 1964–65 to 1968–69 are shown in the following tables.

ALL STATE AUTHORITIES RECEIPTS FROM TAXATION: NET COLLECTIONS, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
NET COLLECTIONS ($'000)							
1964–65	224,349	159,626	68,861	37,706	28,207	12,066	530,815
1965–66	237,931	178,603	72,164	40,151	33,236	13,377	575,462
1966–67	258,324	199,247	83,434	46,050	41,798	14,784	643,637
1967–68	288,196	224,593	97,502	51,243	50,671	16,953	729,158
1968–69	324,816	266,909	103,804	56,893	60,121	18,974	831,517
PER HEAD OF POPULATION ($)							
1964–65	54.16	50.90	42.33	35.84	34.52	32.93	47.64
1965–66	56.52	55.92	43.47	37.11	39.69	36.19	50.69
1966–67	60.46	61.31	49.42	41.71	48.48	39.54	55.72
1967–68	66.30	68.02	56.76	45.83	56.77	44.68	62.02
1968–69	73.32	79.54	59.27	50.10	64.72	49.19	69.36

ALL STATE AUTHORITIES RECEIPTS FROM TAXATION: TOTAL NET COLLECTIONS BY TYPE OF TAX, 1964-65 TO 1968-69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Probate and succession duties	91,693	94,753	106,559	119,151	134,383
Land tax	62,702	69,497	72,736	76,103	75,129
Liquor tax	26,211	27,403	31,226	34,299	38,427
Lottery(*a*), poker machines, racing taxes	68,895	75,091	85,731	97,039	106,716
Vehicle registration fees and taxes	95,084	106,872	115,282	124,409	136,790
Drivers', etc., licences and fees	11,548	13,607	14,377	14,865	16,096
Stamp duty (vehicle registration)	7,895	10,525	11,576	14,768	16,707
Road transport taxes and road maintenance contributions	31,879	33,936	38,401	42,580	47,153
Third party insurance surcharges and duties	2,815	3,132	3,314	3,472	4,051
Stamp duties, n.e.i.	104,108	109,663	124,965	157,943	206,575
Other taxes	27,983	30,984	39,470	44,529	49,490
Total	**530,815**	**575,462**	**643,637**	**729,158**	**831,517**

(*a*) Includes profits of State Lotteries.

Taxation collections paid to trust and other funds

Details of taxation collections paid into trust and other funds and included in the foregoing table are shown below.

STATE GOVERNMENT RECEIPTS FROM TAXATION: TOTAL PAYMENTS INTO TRUST AND OTHER FUNDS, 1964-65 TO 1968-69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Liquor tax	7,706	8,236	9,120	9,849	10,779
Racing tax	1,647	2,105	2,739	3,613	4,807
Poker machines tax	13,666	15,761	19,650	23,063	26,294
Motor vehicle registration	81,318	92,384	99,782	107,924	119,032
Drivers', etc. licences	8,830	9,708	9,729	10,131	10,881
Road transport taxes	5,789	5,863	6,175	6,911	7,306
Road maintenance contributions	20,625	22,851	26,339	28,929	32,705
Third party insurance surcharges and duties	. .	. .	. .	. .	400
Fire brigades contributions	2,840	3,320	3,842	4,213	4,724
Stamp duties, n.e.i.	1,152	1,203	1,146	1,170	1,225
Licences, n.e.i.	587	616	681	712	832
Other taxes, etc.	5,434	5,410	5,974	7,735	8,622
Total	**149,593**	**167,455**	**185,177**	**204,248**	**227,606**

State Consolidated Revenue Fund receipts from business undertakings

A considerable proportion of State gross revenue is made up of receipts from business undertakings under the control of the Governments. The most important of these are railways and tramways, harbour works, water supply and sewerage, and electricity supply. In addition, State batteries for the treatment of auriferous ores in Western Australia and various minor revenue-producing services rendered by the Governments of all States are included. For the year 1968–69 the receipts from these sources was $635,897,000 or 23.7 per cent of the receipts from all sources.

STATE CONSOLIDATED REVENUE FUND: RECEIPTS FROM BUSINESS UNDERTAKINGS, BY SOURCE, 1968-69

($'000)

Source	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.(a)*	*Total*
Railways(b)	228,560	100,329	99,290	29,350	49,163	..	506,691
Tramways and omnibuses	30,629	..	..	..	..	..	30,629
Harbours, rivers, lights	22,959	(c)3,576	..	6,547	3,301	..	36,382
Water supply, sewerage, irrigation and drainage	..	14,479	..	24,831	4,538	70	43,919
Electricity supply	..	13,897	268	..	..	..	14,165
Other	..	520	..	1,393	1,997	200	4,110
Total	**282,148**	**132,802**	**99,558**	**62,120**	**58,999**	**270**	**635,897**

(a) Tasmanian transport services are under the separate control of semi-government authorities. (b) The following contributions to railways revenue from Consolidated Revenue Fund are excluded—New South Wales, $1,600,000; South Australia, $11,000,000. (c) Includes Harbour Trust Fund contribution, $1,500,000.

STATE CONSOLIDATED REVENUE FUND: RECEIPTS FROM BUSINESS UNDERTAKINGS 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.(a)*	*Total*
RECEIPTS ($'000)							
1964–65	255,024	127,416	79,813	57,256	42,631	348	562,487
1965–66	236,989	126,773	81,717	58,597	49,267	602	553,946
1966–67	257,872	140,627	85,384	61,996	56,525	246	602,650
1967–68	272,570	129,827	91,647	60,256	60,883	248	615,431
1968–69	282,148	132,802	99,558	62,120	58,999	270	635,897
PER HEAD OF POPULATION ($)							
1964–65	61.56	40.63	49.06	54.42	52.17	0.95	50.49
1965–66	56.30	39.69	49.22	54.16	58.84	1.63	48.79
1966–67	60.35	43.27	50.58	56.16	65.56	0.66	52.17
1967–68	62.70	39.31	53.35	53.89	68.21	0.65	52.34
1968–69	63.69	39.57	56.84	54.70	63.51	0.70	53.05

(a) Tasmanian transport services are under the separate control of semi-government authorities.

STATE CONSOLIDATED REVENUE FUND: TOTAL RECEIPTS FROM BUSINESS UNDERTAKINGS, BY SOURCE, 1964-65 TO 1968-69

($'000)

Source	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Railways, tramways and omnibuses	485,800	473,483	508,846	522,259	537,320
Harbour services	27,371	27,142	30,010	33,348	36,382
Water supply, sewerage, irrigation and drainage	33,424	37,370	41,206	41,790	43,919
Other	15,892	15,951	22,588	18,035	18,275
Total	**562,487**	**553,946**	**602,650**	**615,431**	**635,897**

For further information on the finances of the various types of business undertakings in the States *see* the chapters, Transport, Communication and Travel, and Local Government, of this Year Book.

State Loan Funds

The principal purpose of State public borrowing is to assist in financing the development of the resources of the country, e.g. the establishment and operation of railway systems and electricity undertakings, construction of roads and water and sewerage works, and improvements to harbours and rivers.

Statements relating to 'gross' loan expenditure are shown below and on page 573. Gross expenditure represents the amounts disbursed during each year. Details of 'net' loan expenditure, i.e. gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds, may be found in the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities*. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

Gross loan expenditure

Particulars of gross loan expenditure on works, services, etc., are shown in the following tables.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.: DETAILS, 1968–69
($'000)

	N.S.W.	*Vic.(a)*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Public works and services—							
Railways	24,500	16,901	16,873	5,212	15,503	582	79,570
Tramways and omnibuses	940	..	..	..	267	..	1,207
Roads	4,855	4,476	2,844	..	..	789	36,136
Bridges							
Harbours and rivers	13,544	4,432	798	3,194	1,203		
Lights and lighthouses	..	..	..	..			
Water supply	21,626	18,156	229	18,273	14,235	1,277	84,803
Sewerage		1,754	..	9,253			
Electricity and gas supplies	15,280	15,830	4,790	6,000	5,685	20,725	68,310
Public buildings	92,778	70,892	30,167	26,989	21,932	13,903	256,660
Loans and grants to local bodies	1,437	2,236	14,212	..	..	91	17,976
Housing(*b*)	1,910	2,667	1,300	650	2,524	100	9,150
Other public works, etc.	445	546	..	3,065	..	803	4,859
Primary production—							
Soldier settlement	50	..	..	..	..	..	50
Land for settlement	2,400	1,927	440	..	..	50	4,817
Advances to settlers	200	354	..	1,584	..	500	2,638
Water conservation, irrigation and drainage	18,066	(*c*)	8,001	3,321	884	..	30,272
Vermin-proof fencing	..	2	10	(*d*)	..	..	12
Agriculture	2,700	922	..	..	740	817	5,179
Agricultural Bank	..	..	6,404	..	..	..	6,404
Forestry	3,600	3,020	5,290	2,282	400	1,550	16,142
Mines and mineral resources	1,450	254	1,092	244	97	65	3,203
Other	3,316	6,970	..	342	..	175	10,803
Other purposes	..	(*e*)3,367	..	6,202	891	1,107	11,568
Total	**209,097**	**154,706**	**92,450**	**86,611**	**64,361**	**42,533**	**649,759**
Other than works, etc.	662	279	398	307	142	1,811	3,599
Grand total	**209,759**	**154,985**	**92,848**	**86,918**	**64,503**	**44,344**	**653,357**

(*a*) Expenditure from loan funds and on account of loans; includes expenditure from loan funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (*b*) Excludes expenditure from Commonwealth loans under Commonwealth-State Housing Agreement. (*c*) Included in Public works and services—Water supply. (*d*) Included in item Advances to settlers. (*e*) Includes Rural Finance and Settlement Commission, for advances to rural industries $1,569,000.

STATE LOAN EXPENDITURE ON WORKS, SERVICES, ETC. 1964–65 TO 1968–69

($'000)

Year	N.S.W.	Vic.(a)	Qld	S.A.	W.A.	Tas.	Total
1964–65—							
Gross	156,879	128,465	77,963	73,639	51,029	35,780	523,756
Repayments	12,121	7,588	10,972	11,085	4,071	2,428	48,265
Net	144,758	120,878	66,991	62,554	46,958	33,352	475,491
1965–66—							
Gross	170,984	131,884	80,083	75,167	52,926	39,346	550,390
Repayments	16,179	8,146	14,232	10,632	4,983	2,773	56,945
Net	154,806	123,738	65,851	64,535	47,943	36,573	493,446
1966–67—							
Gross	184,457	141,804	93,378	77,809	55,481	40,118	593,047
Repayments	15,138	8,900	8,990	11,156	4,391	3,482	52,057
Net	169,319	132,904	84,388	66,653	51,090	36,636	540,990
1967–68—							
Gross	191,759	148,715	88,075	77,338	60,593	45,993	612,473
Repayments	19,883	8,687	11,227	12,116	7,348	3,865	63,126
Net	171,875	140,028	76,848	65,223	53,244	42,128	549,346
1968–69 –							
Gross	209,759	154,985	92,848	86,918	64,503	44,344	653,357
Repayments	25,562	8,154	12,115	15,680	9,693	4,270	75,474
Net	184,197	146,831	80,733	71,238	54,810	40,074	577,883

(a) *See* footnote (a) to previous table.

Information relating to the government securities and borrowings on issue on behalf of the States is given in the Section on Government Securities on Issue: Commonwealth and States (*see* pages 576–82).

COMMONWEALTH AND STATE FINANCE

Consolidated Revenue Fund expenditure and receipts

In the following table, aggregate expenditure and receipts of Commonwealth Consolidated Revenue Fund for each of the years 1964–65 to 1968–69 may be compared with State Consolidated Revenue Fund totals for the same years as shown in the section State Finance. The combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other divisions of this chapter. The items excluded from the total figures are: payments made by the Commonwealth to the States and included in the State Consolidated Revenue Funds on account of financial assistance grants in 1964–65 to 1968–69, interest under the Financial Agreement, special grants, special financial assistance, grants to universities, specific purpose payments, Tuberculosis Act capital expenditure, National Welfare Fund payments, and estimated payments of pay-roll tax by the States to the Commonwealth. There are other relatively minor payments for which adjustments have not been made, and the adjusted figures are therefore still slightly overstated.

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUND EXPENDITURE AND RECEIPTS, 1964-65 TO 1968-69

Year	Expenditure			Receipts		
	Commonwealth	States	Total	Commonwealth	States	Total
	$'000	$'000	$m	$'000	$'000	$m
1964–65	4,418,178	1,965,133	5,605.2	4,418,178	1,947,050	5,587.2
1965–66	4,879,201	2,120,259	6,105.4	4,879,201	2,095,051	6,080.2
1966–67	5,227,721	2,290,254	6,545.4	5,227,721	2,286,873	6,548.9
1967–68	5,760,480	2,468,603	7,179.5	5,760,480	2,463,357	7,174.2
1968–69	6,085,765	2,699,134	7,657.6	6,085,765	2,687,884	7,646.4

Taxation collections

The following table shows the combined Commonwealth and State taxation collections and the amount per head of population for the years 1964–65 to 1968–69. Taxation collections by other State authorities are included.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS BY TYPE OF TAX, 1964-65 TO 1968-69

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
NET COLLECTIONS ($'000)					
Income taxes	2,291,183	2,544,652	2,725,415	3,030,918	3,410,886
Estate, gift, probate and succession duties	140,532	137,072	155,751	182,412	204,484
Customs and excise duty	899,612	1,022,798	1,081,321	1,167,388	1,248,571
Sales tax	362,825	370,005	380,657	416,626	494,090
Payroll tax	150,078	161,943	172,232	184,416	205,568
Land taxes	62,702	69,497	72,736	76,103	75,129
Liquor taxes	26,357	27,574	31,423	34,525	38,686
Lottery(*a*), poker machines and racing taxes	68,895	75,091	85,731	97,039	106,716
Taxes on ownership and operation of motor vehicles	149,974	168,912	183,892	201,175	222,205
Stamp duties, n.e.i.	104,149	109,727	125,020	158,017	206,661
Licences and registration fees, n.e.i.	4,022	5,772	5,422	6,044	6,804
Other taxes	55,185	65,972	76,743	86,668	93,506
Total	**4,315,517**	**4,759,014**	**5,096,344**	**5,641,328**	**6,313,304**
of which					
Commonwealth taxation (including Territories)	3,784,702	4,183,552	4,452,707	4,912,171	5,481,788
State taxation	530,815	575,462	643,637	729,158	831,517
PER HEAD OF POPULATION ($)					
Income taxes	203.14	221.26	232.77	254.13	280.23
Estate, gift, probate and succession duties	12.46	11.92	13.30	15.29	16.80
Customs and excise duty	79.76	88.93	92.35	97.88	102.58
Sales tax	32.17	32.17	32.51	34.93	40.59
Payroll tax	13.31	14.08	14.71	15.46	16.89
Land taxes	5.56	6.04	6.21	6.38	6.17
Liquor taxes	2.34	2.40	2.68	2.89	3.18
Lottery(*a*), poker machines and racing taxes	6.11	6.53	7.32	8.14	8.77
Taxes on ownership and operation of motor vehicles	13.30	14.69	15.71	16.87	18.26
Stamp duties, n.e.i.	9.23	9.54	10.68	13.25	16.98
Licences and registration fees, n.e.i.	0.36	0.50	0.46	0.51	0.56
Other taxes	4.89	5.74	6.55	7.27	7.68
Total	**382.63**	**413.81**	**435.26**	**473.00**	**518.69**
of which—					
Commonwealth taxation (including Territories)	335.56	363.77	380.29	411.87	450.37
State taxation	47.64	50.69	55.72	62.02	69.36

(*a*) Includes profits of State Lotteries.

Government Borrowing and Financing the Commonwealth Deficit

Movements in government securities on issue are the most important transactions involved in financing the Commonwealth deficit in each of the years 1964–65 to 1968–69 as shown in the table on page 538.

Specifically the deficit, as derived, consists of the following:

Net sales of Commonwealth securities (new issues, *less* redemptions, *less* net purchases from Commonwealth balances in the Trust Fund),

less net purchases of other investments from Commonwealth balances in the Trust Fund,

plus minor items of indebtedness (such as borrowing by Australian Capital Territory and Northern Territory housing trust accounts, and transactions associated with the issue of coin),

less net additions to cash balances and funds provided for the International Monetary Fund.

The following table summarises the relationship of the deficit in each of the years 1964–65 to 1968–69 with the net movement in securities on issue which are derivable from the tables shown on the following pages.

RECONCILIATION OF DEFICIT WITH NET MOVEMENT IN SECURITIES ON ISSUE

($ million)

(*Source;* Supplement to the *Treasury Information Bulletin*, August 1969)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Net movement in securities on issue	362	415	570	707	596
Less net increase in securities on issue held by Trust Fund(*a*)	−155	−135	10	−146	−268
	206	280	580	561	328
Adjustment from face value to cash basis	1	..	..	(*b*)103	..
	207	280	580	664	328
Less increases in net assets of Commonwealth—					
Cash balances	−4	..	−1	..	..
International Monetary Fund	−22	−40	−27	−59	−5
Other(*a*)	1	16	..	37	62
Deficit	**183**	**255**	**552**	**642**	**385**

(*a*) Excludes investment of other than Commonwealth balances in the Trust Fund. (*b*) Includes adjustment of Australian currency equivalent of Sterling debt, following devaluation of Sterling. *See* page 19 of the white paper on 'Government Securities on Issue at 30 June 1968.'

Under the Financial Agreement between the Commonwealth and the States in 1927 the Commonwealth Government accepted responsibility for the securities of the State Governments then on issue, and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth securities for all money borrowed. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf, and the securities are redeemed from the National Debt Sinking Fund to which both the Commonwealth and State Governments make contributions.

In the statistical tables relating to Government securities, details of securities on issue, annual interest liability and average rate of interest liability, except on pages 579–80, are shown in the currencies in which they are repayable or payable respectively. Australian currency equivalents for overseas loans have been calculated using International Monetary Fund par rates of exchange (and the calculated equivalent for Swiss francs) ruling at 30 June in each year shown. Rates of exchange to $A at 30 June 1969 were as follows: £Sterling, 0.46667; United States dollars, 1.1200; Canadian dollars, 1.2108; Swiss francs, 4.8978; Netherlands guilders, 4.0544; Deutsche marks, 4.4800.

The full text of the original Financial Agreement between the Commonwealth and the States was given in Year Book No. 31, page 21, a summary of the original Agreement as affected by the subsequent Agreements in later issues up to No. 37 (*see* pages 685–90) and a summary of the main provisions in further issues up to No. 50 (*see* pages 952–3).

Summary information shown in tables on pages 583 and 585–6 includes transactions related to the raising, disbursement, management and redemption of loans required to finance State deficits and works expenditure in accordance with this agreement. On the other hand, the series excludes non-negotiable, non-interest-bearing securities issued to international institutions (International Monetary Fund, International Development Association, Asian Development Bank, etc.) because no cash receipts or expenditure were involved when these securities were issued. Transactions with these authorities are included in Commonwealth receipts, expenditure or financing items when they occur.

For this and the following reasons, Government Securities on Issue, as set out in the following tables may not be aggregated without adjustment to indicate what is sometimes described as the 'public debt' or 'net public debt' of the Commonwealth and State Governments. There are forms of debt not evidenced by the issue of securities. Again, some of the securities included in the tables are held by the Governments themselves. For example, a State Government may hold temporarily, or even for long periods, securities issued by the Commonwealth Government. The Commonwealth Government itself, through such institutions as the National Debt Commission, or through the Trust Funds, holds large investments in securities issued, either directly by itself or on behalf of the States. In addition, some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth Government. From the point of view of the aggregate net debt of the Commonwealth and the States, it would thus involve duplication if the sum of the securities on issue were to be regarded as representing the 'net public debt'.

Government securities on issue: Commonwealth and States

Government securities on issue, annual interest payable and average rate of interest

In the following tables details are given of government securities on issue on account of the Commonwealth and States, annual interest payable and average rates of interest.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
30 JUNE 1969

	Currency in which repayable							*Total—Australian currency equivalents(a)*
	Australian currency	*Sterling*	*United States dollars*	*Canadian dollars*	*Swiss francs*	*Netherlands guilders*	*Deutsche marks*	
	$A'000	£Stg'000	$US '000	$Can '000	Sw fr '000	f '000	DM '000	$A' 000
For Commonwealth purposes	2,590,952	80,033	748,094	29,727	239,704	6,196	791,740	3,682,140
On account of States—								
New South Wales	2,663,764	92,666	67,430	4,029	15,833	8,999	..	2,931,318
Victoria	2,033,067	27,844	34,160	3,243	12,732	7,233	..	2,130,294
Queensland	1,090,887	22,625	24,579	1,626	6,391	3,684	..	1,164,870
South Australia	1,075,935	23,176	18,491	1,724	6,774	3,631	..	1,145,810
Western Australia	774,295	29,970	11,547	1,240	4,863	2,830	..	851,541
Tasmania	586,078	4,041	11,070	942	3,703	2,094	..	606,671
Total, States	*8,224,027*	*200,322*	*167,277*	*12,804*	*50,296*	*28,471*	..	*8,830,505*
Total, Commonwealth and States—								
Stock and bonds	9,684,495	275,419	300,925	24,195	290,000	34,667	700,000	10,787,350
Treasury bills, internal	859,200	..	..	..	..	..	..	859,200
Treasury notes	205,419	..	..	..	..	..	..	205,419
Treasury bills, public	14,000	..	..	..	..	..	..	14,000
International Bank loans	..	..	132,025	15,636	..	..	78,240	148,257
Loans from Export-Import Bank of the United States	..	..	50,000	..	..	..	..	44,643
Aircraft loans—								
Export-Import Bank	..	..	56,677	..	..	..	..	50,604
Other financial institutions	..	..	81,299	2,700	..	..	13,500	77,831
Debentures	47,694	..	..	..	..	..	..	47,694
Loans for defence purposes	..	..	294,445	..	..	..	..	262,897
Balance of securities of States taken over by Commonwealth and still represented by State securities	..	4,165	..	..	..	..	..	8,925
Other	4,171	(*b*)771	..	..	..	..	..	5,823
Grand total—								
Currencies in which repayable	**10,814,979**	**280,355**	**915,371**	**42,531**	**290,000**	**34,667**	**791,740**	..
Australian currency equivalents(*a*) $A'000	**10,814,979**	**600,756**	**817,295**	**35,126**	**59,210**	**8,550**	**176,728**	**12,512,645**

(*a*) For rates of exchange to $A ruling at 30 June 1969 *see* page 575. (*b*) State securities issued by the Government of Western Australia to meet the costs of acquisition of the Midland Railway Company of Western Australia Ltd.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES ANNUAL INTEREST PAYABLE, 30 JUNE 1969

	Currency in which payable							*Total—Australian currency equivalents(a)*
	Australian currency	*Sterling*	*United States dollars*	*Canadian dollars*	*Swiss francs*	*Netherlands guilders*	*Deutsche marks*	
	$A'000	£Stg'000	$US '000	$Can '000	Sw fr '000	f '000	DM '000	$A'000
For Commonwealth purposes	91,467	4,235	39,118	1,404	11,437	310	50,410	150,291
On account of States—								
New South Wales	130,882	4,321	3,527	232	712	450	..	143,739
Victoria	100,927	1,397	1,771	186	573	362	..	105,863
Queensland	52,842	925	1,290	93	288	184	..	56,158
South Australia	53,135	846	959	99	305	182	..	55,994
Western Australia	38,130	1,038	587	71	219	141	..	41,016
Tasmania	29,011	191	583	54	167	105	..	30,046
Total, States	*404,927*	*8,720*	*8,716*	*736*	*2,263*	*1,424*	..	*432,815*
Grand total—								
Currencies in which repayable	496,394	12,955	47,834	2,140	13,700	1,733	50,410	..
Australian currency equivalents(a) $A'000	496,394	27,760	42,709	1,767	2,797	428	11,252	583,106

AVERAGE RATE OF INTEREST LIABILITY

(Per cent)

For Commonwealth purposes	3.53	5.29	5.23	4.72	4.77	5.00	6.37	4.08
On account of States—								
New South Wales	4.91	4.66	5.23	5.75	4.50	5.00	..	4.90
Victoria	4.96	5.02	5.18	5.75	4.50	5.00	..	4.97
Queensland	4.84	4.09	5.25	5.75	4.50	5.00	..	4.82
South Australia	4.94	3.65	5.19	5.75	4.50	5.00	..	4.89
Western Australia	4.92	3.46	5.08	5.75	4.50	5.00	..	4.82
Tasmania	4.95	4.74	5.27	5.75	4.50	5.00	..	4.95
Total, States	*4.92*	*4.35*	*5.21*	*5.75*	*4.50*	*5.00*	..	*4.90*
Grand total	4.59	4.62	5.23	5.03	4.72	5.00	6.37	4.66

(a) For rates of exchange to $A ruling at 30 June 1969, *see* page 575.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1965 TO 1969

		30 June—				
		1965	*1966*	*1967*	*1968*	*1969*
For Commonwealth purposes—						
Australian currency	$A'000	2,512,888	2,520,779	2,531,402	2,674,987	2,590,952
Sterling	£Stg'000	76,253	73,398	69,262	80,442	80,033
United States dollars	$US'000	368,641	380,067	516,494	705,120	748,094
Canadian dollars	$Can'000	49,665	49,191	48,479	39,939	29,727
Swiss francs	Sw fr'000	194,288	194,088	239,711	239,704	239,704
Netherlands guilders	f'000	7,150	7,150	7,150	6,673	6,196
Deutsche marks	DM'000	84,596	84,596	84,596	178,240	791,740
Total, Commonwealth—Australian currency equivalents(a)	*$A'000*	*3,133,997*	*3,144,518*	*3,275,339*	*3,600,291*	*3,682,140*
On account of States—						
Australian currency	$A'000	6,182,321	6,613,686	7,145,660	7,683,494	8,224,027
Sterling	£Stg'000	268,670	255,670	233,880	206,642	200,322
United States dollars	$US'000	229,884	236,610	194,770	181,073	167,277
Canadian dollars	$Can'000	15,633	14,690	13,852	13,006	12,804
Swiss francs	Sw fr'000	50,296	50,296	50,296	50,296	50,296
Netherlands guilders	f'000	32,850	32,850	32,850	30,661	28,471
Total, States—Australian currency equivalents(a)	*$A'000*	*7,090,533*	*7,494,623*	*7,934,074*	*8,316,544*	*8,830,505*
Total, Commonwealth and States—Australian currency equivalents(a)	**$A'000**	**10,224,530**	**10,639,141**	**11,209,413**	**11,916,836**	**12,512,645**

(a) For rates of exchange to $A ruling at 30 June 1969 *see* page 575.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES ANNUAL INTEREST PAYABLE, 30 JUNE 1965 TO 1969

AMOUNT

		30 June—				
		1965	*1966*	*1967*	*1968*	*1969*
For Commonwealth purposes—						
Australian currency	$A'000	89,540	91,723	91,848	96,063	91,467
Sterling	£Stg'000	3,608	3,509	3,367	4,255	4,235
United States dollars	$US'000	18,202	18,955	26,577	36,848	39,118
Canadian dollars	$Can'000	2,297	2,275	2,244	1,878	1,404
Swiss francs	Sw fr'000	7,982	7,973	10,537	10,537	11,437
Netherlands guilders	f'000	358	357	357	334	310
Deutsche marks	DM'000	4,801	4,801	4,801	10,999	50,410
Total, Commonwealth—Australian currency equivalent(a)	*$A'000*	*119,498*	*122,087*	*129,159*	*144,319*	*150,291*
On account of States—						
Australian currency	$A'000	283,118	313,379	344,583	373,064	404,927
Sterling	£Stg'000	11,034	10,632	9,871	8,943	8,720
United States dollars	$US'000	11,428	11,889	10,231	9,512	8,716
Canadian dollars	$Can'000	899	845	796	748	736
Swiss francs	Sw fr'000	2,263	2,263	2,263	2,263	2,263
Netherlands guilders	f'000	1,643	1,643	1,643	1,533	1,424
Total, States—Australian currency equivalents(a)	*$A'000*	*322,515*	*352,138*	*379,921*	*402,178*	*432,815*
Total, Commonwealth and States—Australian currency equivalents(a)	**$A'000**	**442,014**	**474,225**	**509,080**	**546,497**	**583,106**

AVERAGE RATE OF INTEREST LIABILITY

(Per cent)

	1965	*1966*	*1967*	*1968*	*1969*
For Commonwealth purposes—					
Australian currency	3.56	3.64	3.63	3.60	3.53
Sterling	4.73	4.78	4.86	5.29	5.29
United States dollars	4.94	4.99	5.15	5.23	5.23
Canadian dollars	4.62	4.63	4.63	4.70	4.72
Swiss francs	4.11	4.11	4.40	4.40	4.77
Netherlands guilders	5.00	5.00	5.00	5.00	5.00
Deutsche marks	5.68	5.68	5.68	6.17	6.37
Total, Commonwealth—Australian currency equivalents(a)	*3.82*	*3.88*	*3.94*	*4.02*	*4.08*
On account of States—					
Australian currency	4.58	4.74	4.82	4.86	4.92
Sterling	4.11	4.16	4.22	4.32	4.35
United States dollars	4.97	5.02	5.25	5.25	5.21
Canadian dollars	5.75	5.75	5.75	5.75	5.75
Swiss francs	4.50	4.50	4.50	4.50	4.50
Netherlands guilders	5.00	5.00	5.00	5.00	5.00
Total, States—Australian currency equivalents(a)	*4.55*	*4.70*	*4.79*	*4.84*	*4.90*
Total, Commonwealth and States—Australian currency equivalents(a)	**4.33**	**4.46**	**4.54**	**4.59**	**4.66**

(a) For rates of exchange to $A ruling at 30 June 1969 *see* page 575.

Government securities on issue and annual interest payable—Australian currency

In the following tables, details, including per capita figures, are shown in Australian currency equivalents calculated at rates of exchange ruling at 30 June of each of the years concerned.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
30 JUNE 1969—AUSTRALIAN CURRENCY

	Currency in which repayable							
	Australian currency	*Sterling*	*United States dollars*	*Canadian dollars*	*Swiss francs*	*Netherlands guilders*	*Deutsche marks*	*Total*
SECURITIES ON ISSUE ($A'000)								
For Commonwealth purposes—								
Treasury Bills, internal	859,200	..	..	..	..	..	..	859,200
Other short-term	219,419	..	..	..	..	..	..	219,419
Other	1,512,333	171,498	667,941	24,552	48,941	1,528	176,728	2,603,521
Total, Commonwealth	*2,590,952*	*171,498*	*667,941*	*24,552*	*48,941*	*1,528*	*176,728*	*3,682,140*
On accounts of States—								
New South Wales	2,663,764	198,569	60,205	3,328	3,233	2,220	..	2,931,318
Victoria	2,033,067	59,665	30,500	2,678	2,600	1,784	..	2,130,294
Queensland	1,090,887	48,482	21,946	1,343	1,305	909	..	1,164,870
South Australia	1,075,935	49,662	16,510	1,424	1,383	896	..	1,145,810
Western Australia	774,295	64,221	10,310	1,024	993	698	..	851,541
Tasmania	586,078	8,659	9,884	778	756	516	..	606,671
Total, States	*8,224,027*	*429,258*	*149,354*	*10,575*	*10,269*	*7,022*	..	*8,830,505*
Total, Commonwealth and States—								
Treasury Bills, internal	859,200	..	..	..	..	..	..	859,200
Other short-term	219,419	..	..	..	..	..	..	219,419
Other	9,736,360	600,756	817,295	35,126	59,210	8,550	176,728	11,434,026
Grand total	**10,814,979**	**600,756**	**817,295**	**35,126**	**59,210**	**8,550**	**176,728**	**12,512,645**
PER HEAD OF POPULATION ($A)								
For Commonwealth purposes	210.73	13.95	54.32	2.00	3.98	0.12	14.37	299.48
On account of States—								
New South Wales	595.31	44.38	13.45	0.74	0.72	0.50	..	655.10
Victoria	600.77	17.63	9.01	0.79	0.77	0.53	..	629.50
Queensland	617.01	27.42	12.41	0.76	0.74	0.51	..	658.86
South Australia	940.17	43.40	14.43	1.24	1.21	0.78	..	1,001.23
Western Australia	818.84	67.92	10.90	1.08	1.05	0.74	..	900.53
Tasmania	1,508.57	22.29	25.44	2.00	1.95	1.33	..	1,561.57
Total, States	*679.38*	*35.46*	*12.34*	*0.87*	*0.85*	*0.58*	..	*729.48*
Total, Commonwealth and States	**879.60**	**48.86**	**66.47**	**2.86**	**4.82**	**0.70**	**14.37**	**1,017.68**
ANNUAL INTEREST PAYABLE ($A'000)								
For Commonwealth purposes	91,467	9,075	34,927	1,160	2,335	76	11,252	150,291
On account of States—								
New South Wales	130,882	9,259	3,149	192	145	111	..	143,739
Victoria	100,927	2,994	1,581	154	117	89	..	105,863
Queensland	52,842	1,982	1,152	77	59	45	..	56,158
South Australia	53,135	1,813	856	82	62	45	..	55,994
Western Australia	38,130	2,224	524	59	45	35	..	41,016
Tasmania	29,011	409	521	45	34	26	..	30,046
Total, States	*404,927*	*18,686*	*7,782*	*608*	*462*	*351*	..	*432,815*
Total, Commonwealth and States	**496,394**	**27,760**	**42,709**	**1,767**	**2,797**	**428**	**11,252**	**583,106**

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1969—AUSTRALIAN CURRENCY—*continued*

	Currency in which repayable—							
	Australian currency	*Sterling*	*United States dollars*	*Canadian dollars*	*Swiss francs*	*Netherlands guilders*	*Deutsche marks*	*Total*
ANNUAL INTEREST PAYABLE PER HEAD OF POPULATION ($A)								
For Commonwealth purposes	7.44	0.74	2.84	0.09	0.19	0.01	0.92	12.22
On account of States—								
New South Wales	29.25	2.07	0.70	0.04	0.03	0.02	. .	32.12
Victoria	29.82	0.88	0.47	0.05	0.03	0.03	. .	31.28
Queensland	29.89	1.12	0.65	0.04	0.03	0.03	. .	31.76
South Australia	46.43	1.58	0.75	0.07	0.05	0.04	. .	48.93
Western Australia	40.32	2.35	0.55	0.06	0.05	0.04	. .	43.38
Tasmania	74.67	1.05	1.34	0.12	0.09	0.07	. .	77.34
Total, States	*33.45*	*1.54*	*0.64*	*0.05*	*0.04*	*0.03*	. .	*35.75*
Total, Commonwealth and States	**40.37**	**2.26**	**3.47**	**0.14**	**0.23**	**0.03**	**0.92**	**47.43**

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE, 30 JUNE 1965 TO 1969—AUSTRALIAN CURRENCY

($A'000)

	30 June—				
	1965	*1966*	*1967*	*1968*	*1969*
SECURITIES ON ISSUE					
For Commonwealth purposes—					
Treasury Bills, internal	632,400	681,500	679,500	685,000	859,200
Other short-term	196,432	195,996	178,452	414,735	219,419
Other	2,305,165	2,267,022	2,417,388	2,500,557	2,603,521
Total, Commonwealth	*3,133,997*	*3,144,518*	*3,275,339*	*3,600,291*	*3,682,140*
On account of States—					
New South Wales	2,407,364	2,531,928	2,666,905	2,772,812	2,931,318
Victoria	1,679,339	1,781,544	1,893,069	1,998,614	2,130,294
Queensland	919,706	977,046	1,038,902	1,094,921	1,164,870
South Australia	919,446	970,473	1,027,080	1,077,035	1,145,810
Western Australia	691,660	730,700	772,511	804,866	851,541
Tasmania	473,019	502,932	535,606	568,296	606,671
Total, States	*7,090,533*	*7,494,623*	*7,934,074*	*8,316,544*	*8,830,505*
Total, Commonwealth and States—					
Treasury Bills, internal	632,400	681,500	679,500	685,000	859,200
Other short-term	196,432	195,996	178,452	414,735	219,419
Other	9,395,698	9,761,645	10,351,461	10,817,099	11,434,026
Grand total	**10,224,530**	**10,639,141**	**11,209,413**	**11,916,836**	**12,512,645**
ANNUAL INTEREST PAYABLE					
For Commonwealth purposes	119,498	122,087	129,159	144,319	150,291
On account of States—					
New South Wales	110,250	119,668	128,128	134,301	143,739
Victoria	77,650	85,023	91,936	98,070	105,863
Queensland	40,492	44,493	48,904	51,970	56,158
South Australia	41,534	45,350	48,797	51,889	55,994
Western Australia	30,886	33,617	36,217	38,165	41,016
Tasmania	21,706	23,987	25,941	27,776	30,046
Total, States	*322,515*	*352,138*	*379,921*	*402,178*	*432,815*
Total, Commonwealth and States	**442,014**	**474,225**	**509,080**	**546,497**	**583,106**

Government securities on issue at each rate of interest and according to earliest and latest years of maturity

For details of securities on issue for Commonwealth and State purposes at 30 June 1969 at each rate of interest and classified according to the earliest and latest years of maturity *see* the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities*.

Short-term securities on issue

Particulars of the short-term securities (Treasury bills, Treasury notes and seasonal securities) of the Commonwealth and States in Australia at intervals from 30 June 1962 to 30 June 1966 are shown on page 814 of Year Book No. 53, and particulars at earlier dates are shown in previous issues. These securities are included in the government securities on issue as shown elsewhere. No short-term securities have been raised overseas since September 1956, when all such securities held in London were expatriated to Australia.

The Treasury bill discount rate in Australia has remained at 1 per cent since 29 July 1952.

Treasury notes with currencies of thirteen weeks (A Notes) and of twenty-six weeks (B Notes) were issued in multiples of $1,000 with a minimum subscription of $10,000. In 1968-69 the issue prices of A Notes varied from 98.91 per cent to 98.82 per cent and yields from 4.420 per cent to 4.789 per cent. The issue prices of B Notes varied from 97.80 per cent to 97.61 per cent and yields from 4.51 per cent to 4.910 per cent.

Government securities on issue maturing in Australia, classified by holder

The following table shows details of government securities maturing in Australia classified according to holder as at 30 June 1968 and 1969.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATE MATURING IN AUSTRALIA, BY HOLDER(*a*), 30 JUNE 1968 AND 1969

(*Source:* Reserve Bank of Australia *Statistical Bulletin*)

	30 June—			
	1968		*1969*	
Holder	*Amount*	*Proportion of total*	*Amount*	*Proportion of total*
	$ million	Per cent	$ million	Per cent
Reserve Bank of Australia	1,041	10.1	846	7.8
Trading banks	1,193	11.5	1,367	12.6
Savings banks	2,250	21.7	2,285	21.1
Other banking institutions	7	0.1	12	0.2
Life insurance offices	1,093	10.6	1,150	10.6
Fire, marine and general insurance offices	123	1.2	126	1.2
Other private financial institutions—				
Pension and provident funds	174	1.7	192	1.8
Friendly societies, hospitals and medical funds	25	0.2	29	0.3
Trustee companies	122	1.2	115	1.1
Pastoral finance companies	35	0.3	37	0.3
Money market dealers	494	4.8	524	4.8
Miscellaneous	80	0.8	104	1.0
Government financial institutions—				
Insurance offices and funds	121	1.2	137	1.3
Pension and provident funds	173	1.7	195	1.8
Public trustees	28	0.3	26	0.2
All other(*b*)	4	..	3	..
Public authorities (excluding finance)—				
Commonwealth Government (including Commonwealth semi-governmental)	1,789	17.3	2,067	19.1
State Government	58	0.6	57	0.5
Local government and State semi-governmental	245	2.4	233	2.2
Companies (excluding finance)	145	1.4	183	1.7
Other holders—				
Marketing boards	6	0.1	3	..
Farmers	87	0.8	83	0.8
Non-profit organisations	52	0.5	48	0.4
All other	1,012	9.8	993	9.2
Total	**10,358**	**100.0**	**10,815**	**100.0**

(*a*) Total stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Commonwealth Treasury Bills and Treasury Notes, debentures, and Savings Certificates. (*b*) Includes securities held by Commonwealth Development Bank of Australia.

Government securities on issue on account of the States; local government and semi-government authority securities on issue

In some States certain public utilities, such as tramways, water supply and sewerage, harbour services, etc., are controlled by boards or trusts, which, in addition to receiving advances from the central government, raise loans by borrowing on their own behalf, while in other States these services are controlled by the central government. Direct comparisons between States of the securities on issue on account of the several States should therefore be made with caution. The table following shows for 1963–64 to 1967–68 particulars of the securities on issue on account of the States, the securities on issue by local government and semi-government authorities, and the aggregates of these.

GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES LOCAL GOVERNMENT AND SEMI-GOVERNMENT AUTHORITY SECURITIES ON ISSUE, 30 JUNE 1964 TO 1968

	State	*Local government (a)*	*Semi-government(a)*	*Total*
SECURITIES ON ISSUE ($A'000)(*b*)				
30 June 1968—				
New South Wales	2,772,812	622,317	678,882	4,074,011
Victoria	1,998,614	200,852	1,566,079	3,765,545
Queensland	1,094,921	346,229	317,482	1,758,632
South Australia	1,077,035	42,079	152,548	1,271,662
Western Australia	804,866	59,616	108,881	973,363
Tasmania	568,296	58,058	64,091	690,445
Total, 30 June 1968	**8,316,544**	**1,329,152**	**2,887,964**	**12,533,660**
1967	7,934,074	1,220,628	2,688,052	11,842,754
1966	7,494,623	1,121,852	2,482,096	11,098,571
1965	7,090,533	1,035,864	2,312,824	10,439,222
1964	6,690,562	953,191	2,141,719	9,785,472
PER HEAD OF POPULATION ($A)(*b*)				
30 June 1968—				
New South Wales	637.91	142.04	154.95	937.27
Victoria	605.27	60.44	471.23	1,140.38
Queensland	637.40	199.87	183.27	1,023.77
South Australia	963.19	37.40	135.57	1,137.24
Western Australia	901.81	65.56	119.73	1,090.60
Tasmania	1,497.88	151.98	167.78	1,819.83
Total, 30 June 1968	**707.39**	**112.13**	**243.63**	**1,066.09**
1967	681.20	104.80	230.79	1,025.28
1966	654.73	98.00	216.84	969.57
1965	630.53	92.12	205.67	928.32
1964	606.31	86.38	194.09	895.10

(*a*) Excludes amounts due to the central government. Includes bank overdrafts. (*b*) Overseas holdings have been converted to Australian currency at the rates of exchange current at 30 June of each year shown.

NOTE. The considerable changes in the figures for local government and semi-government debt in the table above when compared with figures in Official Year Book prior to issue No. 54 are due to the transfer of New South Wales County Councils from the semi-government division to that of local government authorities (*see* pages 604–6).

Commonwealth loan transactions: summary

Under the Financial Agreement between the Commonwealth and the States, the Commonwealth is responsible for raising loan moneys to meet approved Loan Council borrowing programmes of both the Commonwealth and State Governments.

The following table indicates sources of finance for State works and housing programmes as approved by the Loan Council.

GOVERNMENT BORROWING: STATE WORKS AND HOUSING PROGRAMMES
1964-65 TO 1968-69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Public loans, domestic raisings, etc.	424,092	413,871	501,133	407,655	472,559
Overseas loans	22,108	22,369	53,945	76,795	125,998
Commonwealth assistance to programmes(*a*)	133,800	168,760	89,922	192,550	111,443
Total	**580,000**	**605,000**	**645,000**	**677,000**	**710,000**

(*a*) Allocated proceeds of Special Loans nos 163, 172, 180 and 187

Summary of loan transactions

The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the five years 1964–65 to 1968–69.

COMMONWEALTH LOAN TRANSACTIONS: SUMMARY, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New loans(*a*) raised in—						
Australia	$A'000	600,120	658,725	673,696	709,665	652,288
London	£Stg'000	..	..	..	14,000	..
New York(*b*)	$US'000	87,269	75,807	185,794	243,759	138,105
Canada	$Can'000	..	..	..	2,050	950
Switzerland	Sw fr.'000	..	..	50,000	..	60,000
Germany	DM'000	..	..	..	100,000	615,000
Miscellaneous debt in Australia(*c*)	$A'000	24,184	6,350	29,271	18,880	20,997
Net change in short-term debt—						
Australia—Public	$A'000	−62,000	−36,000	10,000	51,000	−127,000
Internal	$A'000	33,400	49,100	−2,000	5,500	174,200
Treasury notes	$A'000	−72,138	35,564	−27,544	185,283	−68,316
Loans raised for conversion or redemption of existing securities maturing in—						
Australia	$A'000	540,645	761,000	618,268	641,766	422,484
London	£Stg'000	..	..	..	32,000	..

(*a*) Includes loans raised for redemption of Treasury bills. (*b*) Includes proceeds of, $US23,519,000, $US17,057,000 and $US555,000 in 1964–65, 1965–66 and 1966–67 from International Bank for Reconstruction and Development loan used for the purposes of the Snowy Mountains Hydro-electric Authority and proceeds of $US100,989,000, $US148,236,000 and $US101,519,000 in 1966–67, 1967–68 and 1968–69 under credit arrangements for defence purchases in the United States. (*c*) Advance loan subscriptions (net change), 'over the counter sales' (instalment stock and inscribed stock and bonds issued by State Governments), and Peace Savings Certificates (interest credited).

Minus sign (−) denotes a decrease in debt.

National Debt Sinking Fund

Securities on issue on behalf of the Commonwealth

The National Debt Sinking Fund was established by the *National Debt Sinking Fund Act* 1923–1959 and came into operation on 11 August 1923. Particulars of the creation and operation of sinking funds by that Act are included in issues of the Year Book prior to No. 23. The *National Debt Sinking Fund Act* 1966 repealed all previous legislation on sinking funds relating to securities on issue on behalf of the Commonwealth. Under the Act of 1966 the period of redemption is 25 years from 1 July 1966 for debt outstanding at 30 June 1966 and 25 years for net debt created in subsequent years.

Broadly, the amounts payable to the National Debt Sinking Fund each year are made up of contributions from the Consolidated Revenue Fund of the Commonwealth as follows:

(*a*) an amount of $30.94 million each year for a period of 25 years;

(*b*) an amount equal to 4 per cent of the amount of net debt created (if any) in any year for a period of 25 years.

In addition, an amount equal to specified receipts by the Commonwealth in repayment of loans or advances made out of moneys in the Loan Fund will be paid to the Sinking Fund.

The amounts payable to the Fund in any year from Consolidated Revenue Fund are to be reduced by the following:

(*a*) the net income from investments in any year; and

(*b*) an amount equal to 4 per cent of the amount of the net reduction of debt in any year.

Particulars of receipts and expenditure of the Commonwealth Account for the years 1964–65 to 1968–69 are as follows.

NATIONAL DEBT SINKING FUND: COMMONWEALTH ACCOUNT, 1964-65 TO 1968-69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Receipts—					
From Consolidated Revenue	62,171	64,969	21,589	25,421	32,832
Loans and advances repaid	10,318	11,659	12,684	13,772	14,909
War Service Homes money repaid	31,137	31,045	(*a*)	(*a*)	(*a*)
Reparation moneys	..	221	..	..	..
Interest on investments	12,040	11,910	9,351	7,665	5,502
Total, receipts	*115,666*	*119,804*	*43,624*	*46,859*	*53,243*
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	153,857	81,869	112,435	68,019	33,340
London	7,239	6,565	9,905	5,983	693
New York(*b*)	22,301	26,166	29,852	26,145	28,253
Canada	69	151	131	122	28
Netherlands	..	..	..	118	119
Total, expenditure	*183,466*	*114,751*	*152,324*	*100,386*	*62,434*
Balance at 30 June	297,761	302,814	194,114	140,587	131,396
Face value of securities repurchased and redeemed in—					
Australia	153,823	82,258	112,784	68,287	33,473
London	6,279	5,711	10,340	6,043	876
New York(*b*)	10,204	12,026	29,875	26,569	29,624
Canada	34	75	134	135	32
Netherlands	..	..	..	118	118
Total, face value	*170,340*	*100,070*	*153,133*	*101,151*	*64,123*

(*a*) In the years 1966–67, 1967–68 and 1968–69 principal repayments were credited to Consolidated Revenue Fund.
(*b*) Includes instalment repayments of loans from International Bank for Reconstruction and Development: 1964–65—face value, $8.4m, net cost, $18.3m; 1965–66—face value, $8.7m, net cost, $19.1m; 1966–67—face value, $19.9m, net cost, $20.0m; 1967–68—face value, $20.8m, net cost, $20.2m; 1968–69—face value, $21.8m, net cost $21.1m.

Securities on issue on behalf of States

A sinking fund for the redemption of the securities on issue on behalf of States was established under the Financial Agreement. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1968–69 and for all States during the years 1964–65 to 1968–69 are shown in the following tables.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	7,214	5,189	2,790	2,835	2,105	1,485	21,619
States	25,902	20,004	9,869	10,137	8,373	4,523	78,807
Interest from States on cancelled securities	41	27	24	13	14	7	126
Special contributions by States	63	25	28	16	6	..	138
Interest on investments, etc.	−65	−79	−17	−27	−14	−19	−220
Total, receipts	*33,154*	*25,167*	*12,694*	*12,974*	*10,483*	*5,997*	*100,469*
Expenditure (net cost)—							
Securities repurchased and redeemed in—							
Australia	16,559	10,180	5,614	5,591	4,480	2,695	45,120
London	1,966	2,357	3,169	2,060	2,510	270	12,333
New York	4,446	2,323	1,600	1,231	818	708	11,126
Canada	46	37	19	19	14	11	145
Netherlands	173	139	71	70	54	40	546
Total, expenditure	*23,189*	*15,036*	*10,472*	*8,972*	*7,876*	*3,724*	*69,270*
Balance at 30 June 1969	11,228	10,176	2,658	4,209	3,015	2,354	33,639
Face value of securities repurchased and redeemed in—							
Australia	16,564	10,181	5,614	5,593	4,480	2,695	45,127
London(*a*)	2,349	2,486	3,300	2,239	2,848	321	13,543
New York(*a*)	4,939	2,560	1,777	1,359	893	790	12,318
Canada(*a*)	53	42	21	22	16	12	167
Netherlands(*a*)	171	137	70	69	54	40	540
Total, face value	*24,075*	*15,406*	*10,782*	*9,283*	*8,291*	*3,859*	*71,695*

(*a*) Converted in accordance with the Financial Agreement at the equivalent of the mint par of exchange prevailing on 1 July 1927.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1964-65 TO 1968-69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Receipts—					
Contributions under Financial Agreement—					
Commonwealth	16,646	17,761	18,951	20,387	21,619
States	60,099	64,385	68,867	73,486	78,807
Interest from States on cancelled securities	26	106	113	93	126
Special contributions by States	222	222	220	143	138
Interest on investments, etc.	—36	30	—46	48	—220
Total, receipts	*76,958*	*82,503*	*88,105*	*94,157*	*100,469*
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	52,808	60,861	59,451	50,568	45,120
London	14,612	11,685	16,545	31,815	12,333
New York	9,948	11,775	10,441	11,330	11,126
Canada	358	782	680	631	145
Netherlands	..	..	..	543	546
Total, expenditure	*77,726*	*85,104*	*87,118*	*94,886*	*69,270*
Balance at 30 June	4,783	2,182	3,169	2,440	*33,639*
Face values of securities repurchased and redeemed in—					
Australia	52,825	60,888	59,496	50,586	45,127
London(*a*)	12,250	10,002	13,579	28,953	13,543
New York(*a*)	4,554	5,455	4,925	5,629	12,318
Canada(*a*)	178	388	344	348	167
Netherlands(*a*)	..	..	..	677	540
Total, face value	*69,807*	*76,733*	*78,345*	*86,193*	*71,695*

(*a*) Converted in accordance with the Financial Agreement at the equivalent of the mint par of exchange prevailing on 1 July 1927.

TAXES ON INCOME

A description of the development of income taxes in Australia appeared in Year Book No. 35, page 926. Since July 1942 the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income.

The laws dealing with the assessment and imposition of Income tax at 30 June 1969 were—*Income Tax Assessment Act* 1936–1969, *Income Tax Act* 1968, *Income Tax* (*Partnerships and Trusts*) *Act* 1968, *Income Tax*(*Non-Resident Dividends and Interest*)*Act* 1967, and the Income Tax Regulations. The second-mentioned Act is an annual measure, and its primary purpose is to declare the rates of tax payable for the financial year.

Both individuals and companies are liable for income tax. Private companies are subject to tax on undistributed income in addition to the primary income tax levied on all companies.

The operation of the *Income Tax Assessment Act* 1936–1969 is affected by the following Acts:

(*a*) *Taxation Administration Act* 1953–1966, which provides for the administration of certain Acts relating to taxation;

(*b*) *Income Tax* (*International Agreements*) *Act* 1953–1969 which gives the force of law to agreements between the Commonwealth and the Governments of the United Kingdom, Canada and New Zealand, and to a convention between the Commonwealth and the Government of the United States of America, for the avoidance of double taxation and the prevention of evasion of taxes on income.

(*c*) *Diplomatic Privileges and Immunities Act* 1967 which provides for the exemption from Income Tax of certain income of diplomatic representatives, their staff and families.

Lodgment of returns and assessment of income tax

Individuals, partnerships and trusts, non-profit companies with total income in excess of $416 and all other companies deriving income are required to lodge returns of income each year. Partnerships and Trusts are not required to pay tax except in certain circumstances when they may be assessed as individuals. In general the net income is distributed to the partners or beneficiaries concerned and is assessable for tax in their respective individual returns.

Income tax payable is assessed, and assessment notices showing the amounts payable are issued, during the year following the year of income. In respect of individuals the approximate amount payable, however, has already been collected during the income year from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded.

Pay-as-you-earn system

Salary and wage earners are subject to tax instalment deductions by employers according to a prescribed scale which shows the amount to be deducted according to income and number of dependants. Under the group scheme of deduction, covering most employers of more than ten persons, the amount deducted is remitted to the Taxation Department.

Not later than 14 July each year employers are required to supply each employee with a group certificate showing amount earned and total deductions made during the year ended 30 June.

Under the stamp scheme used by employers, other than group employers, a stamp deduction sheet in two parts is used. Each four weeks the employer purchases stamps (also in two parts) for the amount of deductions made each pay day and sticks one part on each half of the sheet. At the end of the year the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

Individuals with taxable income of $400 *or more from other than salary or wages* pay provisional tax in respect of that income. Collection of tax for the current year is made at the same time as collection and assessment for the previous year are adjusted. The notice of assessment shows an amount of provisional tax for the current year. The provisional amount is an approximation to the tax which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year, but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax paid in the previous year as a credit against the tax assessed on the basis of the return for that year.

Assessable income

Assessable income includes all income, other than exempt income, derived directly or indirectly from sources in Australia and, in the case of resident taxpayers, includes income from sources outside Australia.

Income includes certain other receipts declared by the Assessment Act to be assessable income. Receipts such as gifts (other than gratuities received by an employee from his employer in the course of his employment), legacies, profits from the sale of property (not acquired for the purpose of profit making by sale), lottery wins, and most capital gains are not regarded as income and are not assessable.

Certain types of income are exempt from tax, the more important being (i) war and service pensions (ii) age and invalid pensions, child endowment and other payments under the *Social Services Consolidation Act* 1947–1950 and the *Tuberculosis Act* 1948, (iii) income from gold-mining and some other mining operations, (iv) twenty per cent of certain mining profits, (v) dividends paid out of exempt mining profits, (vi) income received from a scholarship, bursary or other educational allowance, (vii) income of certain non-profit institutions and mutual income of some other organisations, (viii) income of specified superannuation funds, (ix) pay, allowances and bounties for part-time duty, and gratuity payable on a call out for continuous full-time service of members of the Defence Force Emergency Reserves, and (x) pay and allowances of members of the Defence Forces while allotted for duty in special areas (i.e. part of Borneo and adjacent waters, and South Vietnam).

Expenditure incurred in producing assessable income or in carrying on a business is an allowable deduction, except to the extent that it is of a capital, private, or domestic nature, or is incurred in producing exempt income. Subscriptions to certain business associations and trade union dues are also allowable deductions.

Special deductions for both resident and non-resident taxpayers include such items as trading losses incurred in previous years, bad debts, depreciation, annual rates and land taxes paid, gifts to various institutions and, subject to certain conditions, one-third of amounts paid as calls to mining, prospecting, oil-prospecting, or afforestation companies operating in Australia. In lieu of the one-third deduction for calls, capital subscribed to companies engaged in exploration or mining for petroleum and certain other minerals in Australia or Papua and New Guinea may, in certain circumstances, be deductible in full.

Special deductions may be allowed for certain expenditure of a capital nature incurred in mining or prospecting operations conducted for the purpose of earning assessable income and in the provision of certain transport facilities necessary for and directly related to those operations. In the case of primary producers certain developmental expenditure of a capital nature may be deducted. Deductions in addition to depreciation are allowed to manufacturers and primary producers by way of an investment allowance for expenditure on specified plant and equipment. Subject to a maximum permissible tax saving, a special rebate is allowed for certain expenditure on export market development. The rebate is in addition to any normal deduction for the expenditure allowed as a business expense.

Residents of Zone A and Zone B, prescribed isolated areas subject to uncongenial climatic conditions and high costs of living are entitled to a zone allowance deduction. Members of the defence forces serving in certain overseas localities, are entitled to a deduction of the same amount as residents of Zone A.

Concessional deductions

Concessional allowances to residents for dependants, medical and dental expenses, life insurance, superannuation contributions, etc. are made as a deduction from income. The maximum deduction allowed for the income year 1969–70 for each dependant or for a housekeeper is shown below:

Dependant, etc. (resident)	*Maximum deduction(a)*
	$
Spouse, Daughter-housekeeper(*b*); housekeeper(*c*); Parent or parent-in-law . . .	312
One child under 16 years of age; Invalid relative(*d*); Student child 16 to 21 years . .	208
Other children under 16 years of age	156

(*a*) If the dependant is maintained for part only of the year, a partial deduction is allowed. (*b*) Of a widower or widow (*c*) Caring for a spouse in receipt of an invalid pension, or caring for children under 16 years of age of a widower or widow. (*d*) Child, step-child, brother or sister over 16 years of age.

If a dependant derives separate net income, which includes age or invalid pension but not child endowment, the deduction is reduced by the amount, by which the separate net income exceeds $130. Scholarships are excluded except insofar as they relate to maintenance.

Medical expenses (less amounts recouped from hospital and medical funds) paid by a resident taxpayer in respect of himself or dependants, including children under twenty-one years of age, are allowed as a concessional deduction. These expenses include payments to a legally qualified medical practitioner, dentist, nurse or chemist, or hospital, in respect of an illness or operation, therapeutic treatment or eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, payment of an attendant of a blind or bed-ridden person or for the maintenance of a trained dog used by a blind person.

Other concessional deductions allowed to resident taxpayers include: (i) payments of life insurance premiums and contributions to superannuation funds and friendly societies, (maximum $1,200), (ii) payments to medical or hospital funds, (iii) funeral expenses (maximum $100), and (iv) expenditure incurred for the full-time education of children less than twenty-one years of age (maximum $300 for each child).

Effective exemption from tax

For the income years from 1963–64 onwards the income of a taxpayer without dependants was exempt from income tax if it did not exceed $416. The effect of the deductions for dependants was to exempt resident taxpayers up to the incomes shown in the examples hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM TAX

($)

Income years ended June—	Taxpayer with— No dependants	Wife only	Wife and— one child	two children	three children	four children
1964 to 1967 . .	416	702	884	1,014	1,144	1,274
1968 to 1970 . .	416	728	936	1,092	1,248	1,404

Special provisions applying for the 1969–70 income year to *resident aged persons* (i.e. men aged 65 years or more or women aged 60 years or more) were:

(A) Individuals

Taxable Income $	*Amount of Tax payable*
Up to 1,300	Nil
1,301 to 1,532	One-sixth of the excess over $1,300
1,533 to 2,080	$38.66 plus one-fifth of the excess over $1,532
2,081 to 2,275	$148.26 plus two-thirds of the excess over $2,080

(B) Aged Persons Contributing to Maintenance of Spouse

Combined Taxable Income $	*Amount of Tax Payable*
Up to 2,262	Nil
2,263 to 2,500	One-sixth of the excess over $2,262
2,501 to 3,000	$39.66 plus one-third of the excess over $2,500
3,001 to 3,640	$206.32 plus nine-twentieths of the excess over $3,000
3,641 to 4,121	$494.32 plus two thirds of the excess over $3,640

Rates of income tax on individuals

The table on page 590 shows the rates of income tax for income years 1953–54 to 1969–70 as set out in the first schedule to the Income Tax Act.

Assessable income represents total actual income minus exempt income. Taxable income is the amount remaining after all allowable deductions have been made on assessable income.

The minimum amount of income tax payable is 50c.

Where the taxable income of a person does not exceed $428 the amount of tax payable is limited to one half of the amount by which the taxable income exceeds $416.

The only cases in which incomes below $416 attract tax are those for which special rates are payable in accordance with the provisions of the *Income Tax (Partnerships and Trusts) Act* 1968.

For primary producers the rate of income tax for the current year is, in general, determined by the average of the taxable incomes for the five years up to and including the current year. In 1951 a taxpayer was given the right to elect not to have the averaging provisions applied to his assessment but up to 1965–66 income year the election, if made under then existing legislation, was irrevocable. The *Income Tax Assessment Act* 1966 amended this and a primary producer who elected to withdraw from the averaging system prior to the 1966–67 income year is now able to review that decision.

He may return to the averaging system provided that he makes the necessary election in respect of any one of the income years 1966–67 to 1969–70. In the year of re-entry the taxpayer will be treated for averaging purposes as though he had never withdrawn from the system. However, he will not have the right to withdraw again. The application of the averaging provisions is limited to that part of the taxable income which does not exceed $16,000. When the taxable income does exceed $16,000, the balance is taxed at ordinary rates applicable to that part. When the taxable income is less than $16,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of $16,000.

The taxable income, including abnormal receipts, of actors, artists, inventors, etc. is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest derived from bonds, etc. issued between 1 January 1940 and 31 October 1968 by the Commonwealth, or on certain State semi-governmental loans issued free of State income tax, is subject to a rebate of tax of 10 cents for each $1 of interest received. The rebate does not apply to interest received from bonds, etc., issued on or after 1 November 1968.

INCOME TAX—INDIVIDUALS: GENERAL RATES, 1953-54 TO 1969-70 INCOME YEARS

Total taxable income		*1953–54*		*1954–55 to 1964–65(a)*		*1965–66 to 1969–70(b)*	
Column 1 *Exceeding*	*Column 2* *Not exceeding*	*Tax on amount in column 1*	*Tax on each $ of balance of income*	*Tax on amount in column 1*	*Tax on each $ of balance of income*	*Tax on amount in column 1*	*Tax on each $ of balance of income*
$	$	$	cents	$	cents	$	cents
Nil	200	Nil	0.42	Nil	0.42	Nil	0.40
200	300	0.83	1.67	0.83	1.25	0.80	1.20
300	400	2.50	3.75	2.08	2.92	2.00	2.90
400	500	6.25	5.42	5.00	4.58	4.90	4.50
500	600	11.67	7.08	9.58	6.25	9.40	6.10
600	800	18.75	9.17	15.83	8.33	15.50	8.20
800	1,000	37.08	11.67	32.50	10.83	31.90	10.80
1,000	1,200	60.42	13.75	54.17	12.50	53.50	12.50
1,200	1,400	87.92	15.83	79.17	14.17	78.50	14.20
1,400	1,600	119.58	17.50	107.50	15.83	106.90	15.90
1,600	1,800	154.58	19.17	139.17	17.50	138.70	17.60
1,800	2,000	192.92	20.83	174.17	19.17	173.90	19.30
2,000	2,400	234.58	23.33	212.50	21.67	212.50	21.60
2,400	2,800	327.92	26.67	299.17	24.58	298.90	24.60
2,800	3,200	434.58	29.58	397.50	27.08	397.30	27.10
3,200	3,600	552.92	32.50	505.83	29.58	505.70	29.60
3,600	4,000	682.92	35.42	624.17	32.08	624.10	32.10
4,000	4,800	824.58	38.75	752.50	35.42	752.50	35.40
4,800	5,600	1,134.58	41.67	1,035.83	38.33	1,035.70	38.30
5,600	6,400	1,467.92	44.58	1,342.50	41.25	1,342.10	41.20
6,400	7,200	1,824.58	47.50	1,672.50	43.75	1,671.70	43.80
7,200	8,000	2,204.58	50.42	2,022.50	46.25	2,022.10	46.30
8,000	8,800	2,607.92	53.33	2,392.50	48.75	2,392.50	48.70
8,800	10,000	3,034.58	56.67	2,782.50	51.67	2,782.10	51.70
10,000	12,000	3,714.58	60.00	3,402.50	55.00	3,402.50	55.00
12,000	16,000	4,914.58	62.92	4,502.50	57.92	4,502.50	57.90
16,000	20,000	7,431.25	65.83	6,819.17	60.42	6,818.50	60.40
20,000	32,000	10,064.58	68.75	9,235.83	63.33	9,234.50	63.30
32,000	upwards	18,314.58	70.00	16,835.83	66.67	16,830.50	66.70

(*a*) For the 1959–60, 1961–62, 1962-63 and 1963–64 income years a rebate of 5 per cent was allowable on the tax calculated from this schedule. (*b*) Additional tax equal to 2½ per cent of the tax calculated from this schedule was also payable for these financial years.

Taxes on specified incomes

The following table shows the income tax payable by taxpayers, with various incomes and numbers of dependants, on income derived in the years 1960–61 to 1969–70.

INCOME TAX ON SPECIFIED INCOMES, 1960-61 TO 1969-70 INCOME YEARS
($)

Income(a)$	*1960–61*	*1961–62 to 1963–64*	*1964–65*	*1965–66 and 1966–67*	*1967–68 to 1969–70*
TAXPAYER WITH NO DEPENDANTS					
1,000	54.20	51.50	54.20	54.83	54.83
2,000	212.50	201.90	212.50	217.81	217.81
3,000	451.70	429.10	451.70	462.78	462.78
4,000	752.50	714.90	752.50	771.31	771.31
5,000	1,112.50	1,056.90	1,112.50	1,140.10	1,140.10
10,000	3,402.50	3,232.40	3,402.50	3,487.56	3,487.56
TAXPAYER WITH DEPENDENT WIFE					
1,000	25.30	24.00	25.30	25.45	23.27
2,000	159.10	151.10	159.10	162.72	158.02
3,000	376.40	357.60	376.40	385.53	378.97
4,000	660.70	627.70	660.70	677.20	668.60
5,000	1,005.38	955.10	1,005.38	1,030.37	1,020.95
10,000	3,254.70	3,092.00	3,254.70	3,335.99	3,322.21
TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD					
1,000	11.60	11.00	11.60	11.63	8.71
2,000	128.40	122.00	128.40	131.06	122.61
3,000	331.60	315.00	331.60	339.65	326.54
4,000	604.00	573.80	604.00	619.06	603.29
5,000	940.91	893.90	940.91	964.33	945.48
10,000	3,160.70	3,002.70	3,160.70	3,239.55	3,212.00
TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN					
1,000	5.10	4.80	..	..	..
2,000	107.80	102.40	107.80	109.88	98.49
3,000	299.70	284.70	299.70	306.87	289.54
4,000	565.60	537.30	565.60	579.62	555.95
5,000	894.88	850.20	894.88	917.16	888.86
10,000	3,093.50	2,938.80	3,093.50	3,170.66	3,129.32

(*a*) Income remaining after allowing all deductions other than deductions for dependants.

Income tax assessments

The following table shows for the 1967–68 income year the number of taxpayers, income, and net income tax assessed for individuals. For further information *see* the annual bulletin *Commonwealth Taxation Assessments.*

COMMONWEALTH INCOME TAX ASSESSMENTS(*a*): RESIDENT INDIVIDUALS BY GRADE OF INCOME AND BY STATE, ETC. OF ASSESSMENT

(Income derived in the year 1967-68)

Grade of actual income(b)($) and State or Territory of assessment	*Taxpayers*			*Actual income(b)*	*Taxable income(c)*			*Net income tax assessed*
	Males	*Females*	*Total*	*Total*	*Salary and wages*	*Other income*	*Total*	
	No.	No.	No.	$'000	$'000	$'000	$'000	$'000
417– 599	43,883	90,821	134,704	69,206	55,193	11,055	66,249	1,394
600– 799	53,941	114,894	168,835	118,158	90 232	19,214	109,446	3,538
800– 999	59,980	125,302	185,282	167,040	125,900	25,603	151,503	6,735
1,000– 1,199	72,216	139,658	211,874	233,011	175,283	33,249	208,531	11,667
1,200– 1,399	79,518	145,940	225,458	293,048	217,764	42,496	260,260	17,154
1,400– 1,599	86,548	164,759	251,307	377,564	281,242	53,682	334,924	25,529
1,600– 1,799	92,132	170,513	262,645	446,591	332,754	61,005	393,759	33,706
1,800– 1,999	106,722	156,727	263,449	500,081	369,074	67,506	436,580	41,086
2,000– 2,199	136,044	124,270	260,314	546,505	392,372	73,993	466,365	47,376
2,200– 2,399	170,538	93,837	264,375	608,131	429,402	76,660	506,061	54,716
2,400– 2,599	198,558	68,339	266,897	666,848	459,909	80,395	540,304	61,351
2,600– 2,799	218,620	50,226	268,846	725,635	496,241	81,937	578,177	69,089
2,800– 2,999	222,434	36,668	259,102	751,145	507,577	82,260	589,837	73,871
3,000– 3,999	906,475	97,849	1,004,324	3,464,191	2,298,149	383,193	2,681,341	383,872
4,000– 5,999	625,003	59,991	684,994	3,243,179	1,962,400	523,290	2,485,690	452,851
6,000– 7,999	141,901	18,156	160,057	1,089,292	541,405	305,962	847.367	199,938
8,000– 9,999	48,641	7,679	56,320	499.000	203,024	197,249	400,273	113,046
10,000–19,999	52,422	7,966	60.388	787,688	237,291	422,193	659,484	239,877
20,000–29,999	6,203	922	7,125	168,629	36,236	111,487	147,724	70,193
30,000 and over	2,731	396	3,127	153,717	22,718	113,372	136,090	78,303
Central Office	8,963	6,043	15,006	109,151	25,821	66,478	92,300	32,310
New South Wales	1,223,922	624,870	1,848,792	5,563,516	3,592,504	915,491	4,507,992	744,636
Victoria	923,430	500,921	1,424,351	4,285,651	2,700,637	781,414	3,482,050	587,862
Queensland	454,747	202,893	657,640	1,879,090	1,043,462	421,053	1,464,514	228,006
South Australia	310,170	152,241	462,411	1,272,353	798,466	217,565	1,016,030	153,322
Western Australia	253,283	118,150	371,433	1,122,438	639,668	265,023	904,692	151,263
Tasmania	103,890	46,485	150,375	427,218	264,837	70,253	335,090	51,114
Northern Territory	12,789	4,583	17,372	62,563	37,427	7,110	44,537	7,622
Australian Capital Territory	33,316	18,727	52,043	186,679	131,345	21,415	152,759	29,158
Total, residents	**3,324,510**	**1,674,913**	**4,999,423**	**14,908.658**	**9,234,167**	**2,765,801**	**11,999,963**	**1,985,293**
Total, non-residents	*1,193*	*558*	*1,751*	*5,546*	*3,255*	*1,996*	*5,251*	*1,550*
Total, residents and non-residents	*3,325,703*	*1,675,471*	*5,001,174*	*14,914,203*	*9,237,422*	*2,767,797*	*12,005,214*	*1,986,843*

(*a*) Assessments in respect of 1967–68 incomes issued to 30 September 1969. Assessments issued after that date are not included. (*b*) Actual income means, broadly, 'gross income including exempt income less expenditure incurred in gaining that income'. (*c*) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

Details of the number of individual taxpayers and net tax assessed by grades of actual income for the income years 1964–65 to 1967–68 are shown in the following table.

COMMONWEALTH INCOME TAX ASSESSMENTS: RESIDENT INDIVIDUALS, BY GRADE OF ACTUAL INCOME(*a*) (INCOME YEARS 1964-65 TO 1967-68)

Grade of actual income(*a*) ($)	*Income year* 1964–65 Tax-payers	1964–65 Net income tax assessed	1965–66 Tax-payers	1965–66 Net income tax assessed	1966–67 Tax-payers	1966–67 Net income tax assessed	1967–68 Tax-payers	1967–68 Net income tax assessed
	No.	$'000	No.	$'000	No.	$'000	No.	$'000
417– 599	137,122	1,296	141,676	1,589	134,068	1,431	134,704	1,394
600– 799	190,233	3,872	182,683	3,847	171,671	3,562	168,835	3,538
800– 999	221,616	7,878	214,957	7,826	196,995	7,100	185,282	6,735
1,000– 1,199	247,883	13,242	245,847	13,440	231,968	12,641	211,874	11,667
1,200– 1,399	259,250	19,403	259,366	19,810	243,793	18,526	225,458	17,154
1,400– 1,599	278,864	27,264	280,021	28,135	271,943	27,385	251,307	25,529
1,600– 1,799	266,670	32,210	272,872	34,171	276,844	35,234	262,645	33,706
1,800– 1,999	270,858	38,126	262,280	38,824	264,304	40,321	263,449	41,086
2,000– 2,199	291,532	47,004	280,326	47,834	270,010	47,865	260,314	47,376
2,200– 2,399	293,571	53,046	284,991	55,588	274,637	55,529	264,375	54,716
2,400– 2,599	290,225	59,929	288,127	63,715	280,725	63,381	266,897	61,351
2,600– 2,799	275,392	64,662	284,841	70,434	276,502	70,252	268,846	69,089
2,800– 2,999	248,244	65,743	260,131	72,227	262,004	75,065	259,102	73,871
3,000– 3,999	765,272	273,694	831,852	309,965	922,098	351,613	1,004,324	383,872
4,000– 5,999	403,473	260,996	473,003	314,647	591,665	394,361	684,994	452,851
6,000– 7,999	99,934	126,301	111,480	143,944	140,914	179,821	160,057	199,938
8,000– 9,999	40,478	82,261	42,430	88,221	51,490	105,428	56,320	113,046
10,000–19,999	43,479	174,880	46,226	191,563	55,535	223,020	60,388	239,877
20,000–29,999	4,894	48,492	5,302	53,912	6,295	63,229	7,125	70,193
30,000 and over	2,021	46,433	2,141	48,561	2,524	58,389	3,127	78,303
Total .	**4,631,011**	**1,446,732**	**4,770,552**	**1,608,256**	**4,925,985**	**1,834,154**	**4,999,423**	**1,985,293**

(*a*) Actual income means, broadly, gross income including exempt income less expenditure incurred in gaining that income.

Company income taxes

For taxation purposes companies are divided into two main groups—private and public. Broadly, a private company is defined as a company in which all the issued shares are held by not more than twenty persons, or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested, or is a subsidiary of a public company. All other companies are regarded as public companies. Both private and public companies pay primary tax assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income; resident companies, however, receive a rebate at the average rate on the amount of dividends included in the taxable income, while this rebate is not allowed to non-resident companies.

A private company is liable to pay additional tax upon the amount, if any, by which the dividends paid by the company within the prescribed period fall short of sufficient distribution as defined.

Rates of tax. The rates of primary tax for all companies and additional tax for private companies applicable to income years 1959–60 to 1968–69 are shown in the following table.

RATES OF TAX: COMPANIES, 1959-60 TO 1968-69 INCOME YEARS

(Cents per $)

Income years ended June	*Resident private company*			*Resident public company(a)*		*Non resident company*			
	On taxable income		*Additional tax on undistributed income*	*On taxable income*		*On dividends income*		*On other income*	
	Up to $10,000	*On remainder*		*Up to $10,000*	*On remainder*	*Up to $10,000*	*On remainder*	*Up to $10,000*	*On remainder*
1960 to 1963 .	25	35	50	35	40	30	40	35	40
1964 to 1967 .	27½	37½	50	37½	42½	32½	42½	37½	42½
1968 and 1969 .	30	40	50	40	45	35	45	40	45

(*a*) Excludes co-operative, non-profit and life insurance for which the rates of tax (in cents per $) for 1968–69 were:

Type of company	*Taxable income*	
	Up to $10,000	*On remainder*
Co-operative	35	45
Non-profit—Friendly societies' dispensaries .	35	35
Other	35	45
Mutual life insurance	30	40
Other life insurance—Mutual income . . .	30	40
Other income . . .	40	45

Where the taxable income of a non-profit company does not exceed $1,386 the amount of tax payable is limited to half the amount by which the taxable income exceeds $416.

Details in respect of company assessments for the 1967–68 income year are shown in the following table.

COMMONWEALTH INCOME TAX ASSESSMENTS: RESIDENT AND NON-RESIDENT COMPANIES, BY GRADE OF INCOME AND STATE, ETC., OF ASSESSMENT

(Income derived in the year 1967-68)

Grade of taxable income(b) ($) and State or Territory of assessment	*Taxable*				*Non-taxable*		
	Companies	*Actual income (a)*	*Taxable income (b)*	*Net income tax assessed (c)*	*Companies*	*Taxable income (b)(d)*	*Loss*
	No.	$'000	$'000	$'000	No.	$'000	$'000
Loss for year	..	..	..	..	30,832	..	(*e*)261,548
Nil	..	..	..	..	16,473	..	..
1– 1,999 . .	24,399	25,069	16,347	4,810	3,485	2,663	..
2,000– 9,999 . .	29,956	180,758	164,565	47,171	3,915	19,444	..
10,000– 19,999 . .	12,870	187,740	177,266	55,067	1,193	16,652	..
20,000– 39,999 . .	6,790	202,133	189,038	63,832	632	17,360	..
40,000– 99,999 . .	4,415	286,893	271,758	95,733	344	20,805	..
100,000– 199,999 . .	1,667	247,373	231,613	83,582	127	17,507	..
200,000– 399,999 . .	919	286,309	252,878	89,878	58	15,453	..
400,000– 999,999 . .	607	398,237	368,120	126,250	37	21,147	..
1,000,000–1,999,999 . .	178	268,326	248,325	81,947	8	9,107	..
2,000,000 and over . . .	198	1,640,250	1,100,057	362,087	8	35,448	..
Central Office	3,680	1,870,421	1,271,082	429,881	1,691	40,352	(*f*) 60,851
New South Wales . . .	33,512	723,621	681,725	224,735	22,671	41,249	78,095
Victoria	22,475	532,375	505,562	162,595	14,062	37,603	42,152
Queensland	7 829	187,620	176,002	64,187	5,975	8,209	43,074
South Australia . . .	6,851	129,936	124,345	41,779	5,934	9,892	14,104
Western Australia . . .	3,897	132,356	126,119	47,005	2,643	3,116	8,914
Tasmania	1,550	37,537	34,392	11,905	1,184	3,648	3,193
Northern Territory . . .	396	10,972	10,430	3,327	192	215	671
Australian Capital Territory .	1,809	98,248	90,312	24,943	2,760	31,300	10,494
Total	**81,999**	**3,723,088**	**3,019,968**	**1,010,357**	**57,112**	**175,585**	**261,548**

(*a*) Actual income means, broadly, 'gross income including exempt income less expenditure incurred in gaining that income'. (*b*) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (*c*) Excludes additional tax on the undistributed income of private companies. (*d*) Net tax assessed is nil because of rebates. (*e*) Not included in the total shown for taxable income. (*f*) Not included in figures shown in adjoining column.

Yield of income taxes

Income taxes collected. The following table shows the net amounts of taxes collected and the proportions of the several components in the years 1964–65 to 1968–69.

INCOME TAXES COLLECTED: COLLECTION YEARS 1964-65 TO 1968-69

Source of income tax	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
NET AMOUNTS COLLECTED ($'000)					
Individuals—					
Instalments—salaries and wages	990,600	1,160,369	1,323,537	1,507,456	1,727,290
Direct cash payments	579,762	570,799	598,509	669,091	651,340
Companies	709,044	801,105	784,544	836,664	1,006,543
Superannuation funds	162	175	534	858	836
Withholding tax—Dividend	16,039	17,247	22,708	21,716	28,303
Interest	..	..	..	910	4,456
Total	**2,295,607**	**2,549,695**	**2,729,832**	**3,036,695**	**3,418,768**
PERCENTAGES					
Individuals—					
Instalments—salaries and wages	43.15	45.51	48.48	49.64	50.53
Direct cash payments	25.26	22.38	21.93	22.03	19.05
Companies	30.89	31.42	28.74	27.55	29.44
Superannuation funds	0.01	0.01	0.02	0.03	0.02
Withholding tax—Dividend	0.70	0.68	0.83	0.72	0.83
Interest	..	..	..	0.03	0.13
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Income tax assessed. The amounts of income tax covered by statistical analyses of assessments for recent years are shown in the following table. The amounts are shown under the year of income of the taxpayer. Tax is usually paid by companies in the year following the year of income. Individuals pay tax in the year of income, but there is usually an adjustment in the following year. Tax assessed after the close of the normal assessing period is not included.

INCOME TAXES ASSESSED: INCOME YEARS 1963-64 TO 1967-68 ($'000)

Tax	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
Individuals	1,232,442	1,447,886	1,608,952	1,835,333	1,986,843
Companies—					
Primary tax	715,938	787,099	786,925	832,582	1,010,357
Additional tax on undistributed income of private companies	1,609	2,260	2,618	2,934	6,648
Total	**1,949,989**	**2,237,245**	**2,398,495**	**2,670,849**	**3,003,848**

Refunds of revenue. Income tax collections, as previously shown, are net amounts after refunds of revenue made in the course of the year. Refunds are of two types—those charged to special appropriations under authority of the Income Tax Assessment Act and those charged to special appropriations under authority of the Audit Act. Income tax instalment refunds, by far the greatest part of income tax refunds, are made when the instalments deducted during the year exceed the tax assessed on incomes for that year. Refunds made from special appropriations under section 37A of the Audit Act include refunds of moneys paid to the revenue in error, refunds of tax overpaid, refunds due to the amendment of assessments, etc. Refunds of income tax to individuals during the collection years 1964–65 to 1968–69 were: 1964–65, $264,366,000; 1965–66, $305,830,000; 1966–67, $353,194,000; 1967–68, $398,371,000; and 1968–69 $477,965,000.

CHAPTER 19

LOCAL GOVERNMENT

This chapter includes, in addition to information on the operation of local government authorities, information on the operation of certain semi-government authorities. The latter information is not comprehensive for this type of authority, and is included partly because of the association of the functions performed with those of local government authorities, and partly for convenience in preparation. Particulars of the activities of other semi-government authorities, e.g. transport, electricity and gas, and banking undertakings, for which only some financial statistics are given in this chapter, are included in the chapters relevant to those subjects.

Coverage

Local government authorities

In each State of the Commonwealth there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, and health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas, and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc. differ considerably.

The areas over which local government bodies, numbering 900, exercise general control, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania as cities and municipalities. In New South Wales some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g. the county councils. Within shires there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Commonwealth Territories (except for the City of Darwin), practically the whole of Australia comes within local government jurisdiction.

The financial statistics in the following section are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

Semi-government authorities

In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State of Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-government authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g. roads and bridges, water and sewerage, electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority. In the sections which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades particulars are included of the more important of these authorities which operate within the range covered by this chapter.

Roads, bridges, etc.

The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a government department whose duties relate to the construction, reconstruction and maintenance of 'main' and 'developmental' roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Owing to difficulty in obtaining complete particulars of receipts and expenditure of the various local governing bodies in respect of roads under their control, the details of receipts and expenditure given on pages 608–14 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. However, estimates of the aggregate net expenditure of all public authorities concerned with roads and bridges in Australia are given on page 607 of that section. On pages 600–3 some information is given of the revenue and expenditure of local government authorities in respect of roads.

Water supply and sewerage

In the cities of Sydney, Melbourne and Perth the control of water supply and sewerage is in the hands of special boards, while in Adelaide these services are under the direct supervision of a government department. In most of the other cities and towns the municipal councils or, in some cases, water trusts are the controlling bodies, which either construct the works out of their own resources or take them over after they have been constructed by the government.

Harbours

The majority of the harbours in Australia are managed by boards, the members of which are either elected by persons interested, or appointed by the government. In some instances, however, they are directly controlled by the government.

Fire brigades

In all the States the management of fire brigades is undertaken by boards. These boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the government. Occasionally volunteer or country fire brigades are represented.

Local government authorities

New South Wales

For purposes of local government the whole of the Eastern and Central land divisions and more than two-thirds of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which include important towns). At the end of 1969 the area incorporated was 272,452 square miles, or nearly nine-tenths of the total area of the State. All cities, municipalities and shires in the State are subject to the general provisions of the Local Government Act. Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g. electricity, water, gas, abattoirs. At 31 December 1969 there were fifty-three county councils, including the Sydney County Council (constituted under the Gas and Electricity Act).

Victoria

Local government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated areas are French Island (41,600 acres) in Westernport Bay, Lady Julia Percy Island (653 acres) off Port Fairy, Bass Strait Islands (966 acres), part of Gippsland Lakes (81,920 acres), and Tower Hill (1,459 acres) adjacent to the Borough of Koroit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

Queensland

The whole of the State (except certain islands along the coast) is incorporated into cities, towns and shires under the Local Government Act (City of Brisbane Act in the case of Brisbane).

South Australia

The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns and district councils in the agricultural areas.

Western Australia

Local government is established throughout the State, the divisions being cities, towns and shires.

Tasmania

The whole State is divided into municipal districts, Hobart, Launceston, and Glenorchy being incorporated as cities under separate Acts.

Area, population, dwellings, and value of rateable property

The area, population, dwellings, and value of rateable property in the incorporated areas of each State are shown in the following table. The valuations relate to rateable property only and exclude government and other non-rateable property, whose value in the aggregate is considerable. In some cases councils rate on annual value, or unimproved capital value, or improved capital value, or partly on each of these bases of valuation. The amounts stated are the totals for the areas rated according to each basis of valuation. Particulars of dwellings are in accordance with the definition used in the 1966 census, and are compiled from information collected on the census schedules. For the purpose of the census a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide reference and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include vacant dwellings available for sale and renting, 'week-end' and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

In the following table particulars of number, area, and value of rateable property refer to estimates made, where practicable, for the capital city statistical division and outside this division. Wherever the statistical boundary cuts across a local government area the estimates have involved either the inclusion or exclusion of the whole of the local government authority concerned in, or from, the capital city statistical division. Particulars of population refer to estimates made for capital city statistical division and outside this division in accordance with the definition of boundaries used in the 1966 census and exclude migratory population and population in unincorporated areas.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATEABLE PROPERTY, STATES, 1967-68

				Dwellings		*Value of rateable property*		
Location	*Number*	*Area*	*Population*	*Occupied*	*Unoccupied*	*Unimproved capital value*	*Improved capital value*	*Annual value*
		'000 acres	*'000 (a)*	*No. (b)*	*No. (b)*	*$'000*	*$'000*	*$'000*
New South Wales(*c*)—								
Sydney Statistical Division	39	974	2,647	730,877	39,701	3,834,995	9,298,530	630,896
Other	185	173,383	1,723	458,069	61,577	1,627,533	n.a.	n.a.
Total, New South Wales	*224*	*174,357*	*4,370*	*1,188,946*	*101,278*	*5,462,528*	*n.a.*	*n.a.*
Victoria(*d*)—								
Melbourne Statistical Division	55	1,933	2,320	626,343	35,445	n.a.	8,716,000	450,804
Other(*e*)	155	54,177	996	262,617	29,302	n.a.	4,425,235	228,930
Total, Victoria	*210*	*56,110*	*3,316*	*888,960*	*64,747*	*n.a.*	*13.141,234*	*679,734*
Queensland(*a*)—								
Brisbane Statistical Division	9	2,073	813	215,669	10,777	518,996	n.a.	n.a.
Other	122	424,153	913	232,752	30,945	756,604	n.a.	n.a.
Total, Queensland	*131*	*426,226*	*1,726*	*448,421*	*41,722*	*1,275,600*	*n.a.*	*n.a.*
South Australia(*a*)—								
Adelaide Statistical Division	31	573	794	217,590	12,089	n.a.	2,338	116,912
Other	111	36,679	314	81,662	12,502	n.a.	1,136	56,798
Total, South Australia	*142*	*37,252*	*1,108*	*299,252*	*24,591*	*n.a.*	*3,474*	*173,711*
Western Australia(*a*)—								
Perth Statistical Division	27	1,327	606	154,984	8,211	378,633	n.a.	28,007
Other	117	623,262	300	69.675	9,751	226,385	n.a.	5,915
Total, Western Australia	*144*	*624,589*	*906*	*224,659*	*17,962*	*605,017*	*n.a.*	*33,922*

For footnotes *see* next page.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATEABLE PROPERTY, STATES, 1967–68—*continued*

Location	Number	Area	Population	Dwellings: Occupied	Dwellings: Unoccupied	Value of rateable property: Unimproved capital value	Value of rateable property: Improved capital value	Value of rateable property: Annual value
		'000 acres	'000 (*a*)	No. (*b*)	No. (*b*)	$'000	$'000	$'000
Tasmania(*a*)—								
Hobart Statistical Division	5	392	145	37,947	2,836	158,814	539,775	30,795
Other	44	16,493	236	61 418	7,964	192,849	819,825	45,966
Total, Tasmania	*49*	*16,885*	*381*	*99,365*	*10,800*	*351,664*	*1,359,600*	*76,761*

(*a*) Year ended 30 June 1968. Total population less migratory and unincorporated. (*b*) Particulars as at Census 30 June 1966. (*c*) Year ended 31 December 1966. (*d*) Year ended 30 September 1968. (*e*) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission.

Local government finances

The following tables show the latest available financial statistics for local government authorities. The figures relate to the year 1967–68 except for New South Wales, where they relate to the year 1966. For further detail on local government finances *see* annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities*, issued by this Bureau.

Ordinary services. In the returns of revenue and expenditure in the following tables the proceeds from loans and expenditure thereof have been excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1967-68

($'000)

	N.S.W.(a)	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Total*
REVENUE (EXCLUDING LOAN RECEIPTS)							
Taxation—							
Rates (net)	123,854	87,171	44,439	24,369	16,888	9,638	307,915
Penalties	1,196	359	..	..	..		
Licences	2,917	596	741	232	348	147	4,980
Vehicle registration fees and taxes	..	..	..	..	4,638	..	4,638
Total, taxation	*127,967*	*88,126*	*45,180*	*24,601*	*21,873*	*9,785*	*317,533*
Public works and services—							
Sanitary and garbage services	10,271	3,815	8,720	347	1,519	57	24,730
Council properties	10,875	(*d*)17,049	2,506	1,798	5,472	1,205	38,905
Street construction	7,861	25,569	..	4,951	3,197	133	41,711
Other	14,227	4,701	2,714	410	1,117	311	23,480
Total, public works, etc.	*43,234*	*51,134*	*13,940*	*7,507*	*11,305*	*1,705*	*128,826*
Government grants—							
Roads	37,865	969	5,513	(*e*)7,357	10,024	1,653	63,381
Other	5,561	8,137	2.295	802	427	203	17,425
Total, government grants	*43,425*	*9,106*	*7,808*	*8,159*	*10,451*	*1,856*	*80,806*
Profits from business undertakings	..	745	..	18	..	..	763
Fees and fines	..	1,368	..	536	360	686	27,263
All other	..	1,557	(*f*)21,602		1,154		
Total revenue	**214,626**	**152,036**	**88,531**	**40,822**	**45,143**	**14,033**	**555,191**

For footnotes *see* next page.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1967–68—*continued*

($'000)

EXPENDITURE (EXCLUDING LOAN EXPENDITURE)

	N.S.W.(a)	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Total*
General administration	14,664	17,481	9,116	3,886	3,847	1,509	50,503
Debt services (excluding business undertakings)—							
Interest	8,694	10,310	10,649	2,303	2,786	1,540	36,282
Redemption	15,638	12,189	10,215	2,826	4,363	1,445	46,677
Exchange	..	..	186	..	..	..	186
Other	..	63	86	..	..	..	149
Total, debt, etc.	*24,332*	*22,562*	*21,136*	*5,129*	*7,149*	*2,986*	*83,293*
Public works and services—							
Roads, streets and bridges	92,489	50,908	23,290	21,513	14,578	5,144	207,922
Health administration	5,692	1,360	4,598	716	773	350	13,488
Sanitary and garbage services	13,563	7,195	6,485	1,304	1,865	576	30,987
Street lighting	4,659	2,669	1,354	973	595	302	10,551
Council properties	29,852	(g)23,446	10,648	4,387	10,820	2,147	81,301
Other	10,375	10,318	821	1,074	4,254	92	26,934
Total, public works, etc.	*156,630*	*95,896*	*47,196*	*29,967*	*32,885*	*8,610*	*371,184*
Grants—							
Fire brigades	1,076	2,032	602	348	390	183	4,632
Hospitals and ambulances	654	396	..	835	36	121	16,013
Other charities			..	8	224	..	
Other	(h)7,313	(i)3,680	2,561	84		101	
Total, grants	*9,043*	*6,108*	*3,163*	*1,275*	*651*	*405*	*20,645*
All other	7,918	4,692	(j)14,984	6	417	309	28,325
Total expenditure	212,587	146,738	95,595	40,263	44,949	13,819	553,959

(a) Figures for New South Wales relate to the year ended 31 December 1966, and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Year ended 30 September 1968. Figures include transactions of Private Street Accounts. (c) Year ended 30 June 1968. (d) Includes $7,832,000 plant hire. (e) Includes $3,667,000 reimbursement from Highways Department. (f) Includes the following reimbursements: $6,312,000 from Main Roads Department, $1,534,000 from other State Government Departments, and $6,230,000 from other sources. (g) Includes $1,709,000 plant and equipment. (h) To Main Roads Department. (i) Includes $1,758,000 to Country Roads Board. (j) Includes expenditure on work done for reimbursement: for Main Roads Department $6,553,000; for other State Government Departments $1,528,000; other $6,208,000.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1963-64 TO 1967-68

($'000)

Year	*N.S.W.(a)*	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Total*
Revenue(*d*)—							
1963–64	169,130	103,289	61,846	31,836	28,036	10,478	404,615
1964–65	187,689	116,405	66,088	32,360	34,921	10,930	448,393
1965–66	194,387	125,017	73,655	36,190	34,274	11,818	475,340
1966–67	214,626	137,232	78,514	40,314	39,716	12,850	523,252
1967–68	(*e*)	152,036	88,531	40,822	45,143	14,033	(*e*)
Expenditure(*d*)—							
1963–64	165,695	103,320	64,337	32,018	28,476	10,282	404,128
1964–65	181,265	119,013	70,730	33,147	31,588	11,278	447,022
1965–66	193,004	130,392	77,713	37,136	35,400	11,585	485,230
1966–67	212,587	136,984	83,150	39,280	40,334	12,411	524,745
1967–68	(*e*)	146,738	95,595	40,263	44,949	13,819	(*e*)

(*a*) Years ended previous 31 December. (*b*) Years ended 30 September. Figures include transactions of Private Street Accounts. (*c*) Years ended 30 June. (*d*) Excludes loan receipts or expenditure. (*e*) Not yet available.

Business undertakings. The tables following show particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, STATES, 1967-68

($'000)

	N.S.W.(a)	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Total*
REVENUE (EXCLUDING LOAN RECEIPTS)							
Water supply and sewerage—							
Rates	10,851	684	(d)14.878	..	240	4,712	43,652
Charges for services and sales of products	2,613		9,022	1	25	626	
Other (including grants)	(e)4,529	35	1,869	..	90	835	7,358
Total, water supply, etc.	*17,994*	*719*	*25,769*	*1*	*354*	*6,173*	*51,010*
Electricity and gas—							
Rates	1,270	51,747	17	..	..	..	310,851
Charges for services and sales of products	218,874		34,743	1,132	3,068	..	
Other (including grants)	(e)8,132	373	3,575	282	..	..	12,362
Total, electricity, etc.	*228,276*	*52,119*	*38,335*	*1,414*	*3,068*	..	*323,213*
Railways, tramways and omnibuses—							
Charges for services and sales of products	..	..	8,306	..	..	..	8,306
Other (including grants)	..	..	328	..	..	..	328
Total, railways, etc.	..	..	*8,634*	..	..	..	*8,634*
Other—	(f)	(g)	(h)	(i)	(j)	(k)	
Rates	26	..	22	..	..	..	48
Charges for services and sales of products	13,582	2,349	1,633	529	398	540	19,032
Other (including grants)	1,229	62	347	65	..	46	1,749
Total, other	*14,837*	*2,412*	*2,002*	*594*	*398*	*586*	*20,829*
Grand total	**261,107**	**55,251**	**74,740**	**2,009**	**3,820**	**6,759**	**403,686**
EXPENDITURE (EXCLUDING LOAN EXPENDITURE)							
Water supply and sewerage—							
Working expenses	6,862	469	7,810	1	241	3,411	18,794
Depreciation	(l) −261	60	..	..	..	..	−201
Debt charges	6,916	153	6,871	..	130	2,719	16,788
Other (including transfers to general revenue and construction)	..	4	3,970	..	..	15	3,990
Total, water supply, etc.	*13,517*	*686*	*18,651*	*1*	*372*	*6,145*	*39,371*
Electricity and gas—							
Working expenses	185,802	47,737	28,088	1,248	2,118	..	264,992
Depreciation	4,409	1,315	..	..	404	..	6,129
Debt charges	27,461	1,795	7,110	62	459	..	36,887
Other (including transfers to general revenue and construction)	..	586	3,089	169	..	..	3,845
Total, electricity, etc.	*217,672*	*51,434*	*38,288*	*1,478*	*2,981*	..	*311,853*
Railways, tramways and omnibuses—							
Working expenses	..	..	8,514	..	..	..	8,514
Debt charges	..	..	1,126	..	..	..	1,126
Other (including transfers to general revenue and construction)	..	..	324	..	..	..	324
Total, railways, etc.	..	..	*9,964*	..	..	..	*9,964*
Other—	(f)	(g)	(h)	(i)	(j)	(k)	
Working expenses	13,702	1,957	735	635	286	438	17,753
Depreciation	139	253	..	1	..	..	393
Debt charges	1,208	156	116	..	..	12	1,492
Other (including transfers to general revenue and construction)	..	252	1,145	4	..	1	1,402
Total, other	*15,049*	*2,619*	*1,996*	*640*	*286*	*451*	*21,040*
Grand total	**246,238**	**54,739**	**68,898**	**2,120**	**3,638**	**6,596**	**382,229**

(a) Year ended 31 December 1966. (b) Year ended 30 September 1968. (c) Year ended 30 June 1968. (d) Includes Sewerage and Cleansing Rates. (e) Includes Government grant: water supply and sewerage, $3,425,000; electricity and gas, $1,887,000; for part of cost of new works borne by Government. (f) Abattoirs. (g) Abattoirs, hydraulic power undertakings, quarries, iceworks, and reinforced concrete pipe and culvert works. (h) Off-street car parking, municipal markets, hostels, hotels and cinemas. (i) Quarries and hospitals. (j) Quarries, canteens and abattoirs. (k) Abattoirs. (l) Net balance after deducting charge for debt redemptions. The full amount of charge for debt redemption is included under debt charges.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS -REVENUE AND EXPENDITURE, STATES, 1963-64 TO 1967-68

($'000)

Year	*N.S.W.(a)*	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Total*
Revenue(*d*)—							
1963–64	212,020	40,067	53,105	1,889	2,327	4,314	313,722
1964–65	226,234	45,352	58,500	1,621	2,364	5,320	339,392
1965–66	241,348	47,604	64,035	1,852	2,825	5,578	363,242
1966–67	261,107	50,884	69,341	2,174	3,295	6,226	393,026
1967–68	(*e*)	55,251	74,740	2,009	3,820	6,759	(*e*)
Expenditure(*d*)—							
1963–64	199,171	39,883	50,167	1,745	2,142	4,372	297,481
1964–65	210,052	45,117	54,816	1,682	2,318	4,898	318,883
1965–66	226,466	47,962	61,193	1,806	2,773	5,500	345,700
1966–67	246,238	50,963	64,950	2,297	3,227	5,856	373,532
1967–68	(*e*)	54,739	68,898	2,120	3,638	6,596	(*e*)

(*a*) Years ended previous 31 December. (*b*) Years ended 30 September. (*c*) Years ended 30 June. (*d*) Excludes loan receipts or expenditure. (*e*) Not yet available.

Loan expenditure. The tables following show particulars of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, STATES 1967-68

($'000)

	N.S.W.(a)	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Tota*
Ordinary services—							
Roads, bridges, streets, footpaths, drainage, and sewerage	11,140	14,821	26,121	4,774	2,222	2,315	61,393
Council properties	(*d*)10,142	(*d*)7,555	(*d*)2,460	1,843	(*d*)4,506	(*d*)1,269	27,776
Parks, gardens, and recreational reserves	2,338	3,075	2,643	588	1,626	555	10,826
Other	(*e*)2,460	1,341	2,647	124	249	293	7,114
Total, ordinary services	*26,081*	*26,792*	*33,871*	*7,330*	*8,603*	*4,432*	*107,108*
Business undertakings—							
Water supply	7,521	78	13,553	..	99	2,184	23,435
Sewerage	4,148	..	..	..	19	2,747	6,914
Electricity and gas	22,080	2,610	4,343	137	1,087	..	30,257
Railways, tramways and omnibuses	..	..	1,617	..	..	..	1,617
Abattoirs	1,571	1,251	..	..	..	..	2,821
Other	..	1	14	..	..	..	15
Total, business undertakings	*35,320*	*3,940*	*19,526*	*137*	*1,205*	*4,932*	*65,060*
Grand total	**61,401**	**30,732**	**53,397**	**7,467**	**9,808**	**9,364**	**172,168**

(*a*) Year ended 31 December 1966. (*b*) Year ended 30 September 1968. Figures include transactions of Private Street Accounts. (*c*) Year ended 30 June 1968. (*d*) Includes plant. (*e*) Includes advances for homes.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE STATES, 1963–64 TO 1967–68

($'000)

Year	*N.S.W.(a)*	*Vic.(b)*	*Qld(c)*	*S.A.(c)*	*W.A.(c)*	*Tas.(c)*	*Total*
Ordinary services—							
1963–64 .	22,725	21,056	32,426	5,383	5,576	4,289	91,455
1964–65 .	25,645	22,052	30,900	5,692	5,849	3,453	93,590
1965–66 .	25,817	24,280	30,959	6,219	7,143	3,655	98,073
1966–67 .	26,081	25,417	31,757	9,400	7,884	3,890	104,430
1967–68 .	(*d*)	26,792	33,871	7,330	8,603	4,432	(*d*)
Business undertakings—							
1963–64 .	34,142	3,513	12,434	94	622	3,142	53,948
1964–65 .	36,697	3,508	15,042	22	977	2,900	59,146
1965–66 .	41,711	3,570	16,365	20	903	4,687	67,256
1966–67 .	35,320	4,013	18,359	60	765	4,201	62,718
1967–68 .	(*d*)	3,940	19,526	137	1,205	4,932	(*d*)

(*a*) Years ended previous 31 December. (*b*) Years ended 30 September. Figures for Victoria now include transactions of Private Street Accounts. (*c*) Years ended 30 June. (*d*) Not yet available.

Local government and semi-government authorities' debt

Statistics of local government and semi-government debt for 1963–64 to 1967–68 are given in the following paragraphs. The information covers all local government authorities (including New South Wales County Councils previously included with semi-government authorities) and those semi-government authorities responsible for the provision of the following services.

New South Wales. Water Supply, Sewerage and Drainage, Electricity and Gas Supply, Fire Brigades, Banking, Housing, Harbours, Grain Elevators, Roads and Bridges, Marketing, Industry Assistance, and Miscellaneous.

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Transport, Electricity and Gas Supply, Roads and Bridges, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, and Housing.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Transport, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

South Australia. Irrigation and Drainage, Transport, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, University and Miscellaneous.

Western Australia. Water Supply and Sewerage, Harbours, Transport, Electricity Supply, Fire Brigades, Hospitals, Marketing (Agency), Housing, University, and Miscellaneous.

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, Housing, Industry Assistance and Water Supply.

A detailed list of the athorities included is shown in the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities,*

The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local government and semi-government authorities for the year 1967–68. For greater detail *see* the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities.*

LOCAL GOVERNMENT AND SEMI-GOVERNMENT AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION, DEBT, AND INTEREST PAYABLE, STATES

1967–68

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
LOCAL GOVERNMENT AUTHORITIES							
New money loan raisings—							
From government	628	396	3,488	1,027	8	69	5,616
From public	79,144	31,995	40,490	7,365	11,318	8,114	178,244
Total loan raisings	*79,772*	*32,391*	*43,977*	*8,392*	*11,326*	*8,183*	*184,040*
Funds provided for redemption—							
Government loans	686	149	1,803	1,009	3	68	3,717
Loans due to public	31,959	13,733	17,268	1,853	4,634	2,291	71,738
Total funds, redemptions	*32,645*	*13,882*	*19,071*	*2,862*	*4,637*	*2,358*	*75,455*
Accumulated sinking fund balance	38,826	12,909	27,810	138	103	1,394	81,179
Debt—							
Due to government	7,250	7,513	37,052	7,380	69	908	60,171
Due to banks (net overdraft)	2,107	1,831	..	186	211	..	4,335
Due to public creditor(*a*)	620,210	199,021	346,229	41,893	59,405	58,058	1,324,816
Total debt(*a*)	*629,567*	*208,365*	*383,281*	*49,459*	*59,685*	*58,966*	*1,389,323*
Maturing overseas(*a*)(*b*)	..	..	3,557	..	..	..	3,557
Annual interest payable(*a*)	(*c*)	11,378	20,895	2,660	3,308	3,251	(*c*)
SEMI-GOVERNMENT AND OTHER PUBLIC AUTHORITIES							
New money loan raisings—							
From government	30,920	53,425	1,183	29,051	20,482	29,254	164,315
From public	68,306	102,617	35,934	15,478	15,488	8,341	246,164
Total loan raisings	*99,226*	*156,042*	*37,117*	*44,529*	*35,970*	*37,595*	*410,479*
Funds provided for redemption—							
Government loans	8,445	7,826	1,540	4,797	2,587	2,918	28,112
Loans due to public	16,889	30,621	10,901	502	2,547	1,583	63,042
Total funds, redemptions	*25,333*	*38,446*	*12,441*	*5,299*	*5,134*	*4,500*	*91.154*
Accumulated sinking fund balance	110,545	51,838	20,366	3,003	5,276	4,335	195,363
Debt—							
Due to government	565,801	719,791	55,849	417,485	258,047	313,303	2,330,275
Due to banks (net overdraft)	1,303	491	..	289	4,946	..	7,029
Due to public creditor(*a*)	677,579	1,565,588	317,482	152,259	103,935	64,091	2,880,936
Total debt(*a*)	*1,244,683*	*2,285,870*	*373,331*	*570,033*	*366,928*	*377,394*	*5,218,239*
Maturing overseas(*a*)(*b*)	..	5,837	..	..	..	..	5,837
Annual interest payable(*a*)	(*c*)	113,753	19,940	27,347	17,051	18,619	(*c*)

(*a*) Includes debt or interest payable in London and New York. Debt in London is payable in £ sterling which have been converted at the I.M.F. rate of £Stg1 to $A2.1428; New York debt is payable in U.S. dollars which have been converted at the I.M.F. rate of $US1.12 to $A1. (*b*) Included in debt figures above. (*c*) Not yet available.

NOTE. The considerable changes in the figures for New South Wales in the table above when compared with figures published in Official Year Books prior to No. 54 (1968) are due to the transfer of New South Wales County Councils from the semi-government division to that of local government authorities (*see* previous page).

In the table above and the following table debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalised), trade creditors, amounts held in trust, and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalised. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

LOCAL GOVERNMENT AND SEMI-GOVERNMENT AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION AND DEBT, AUSTRALIA, 1963–64 TO 1967–68

($'000)

	1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
LOCAL GOVERNMENT AUTHORITIES					
New money loan raisings—					
From government	6,865	3,945	6,412	5,235	5,616
From public	137,652	136,762	136,148	157,610	178,424
Total loan raisings	*144,517*	*140,708*	*142,560*	*162,845*	*184,040*
Funds provided for redemption—					
Government loans	4,812	4,278	4,281	3,919	3,717
Loans due to public	49,105	56,186	59,033	66,437	71,738
Total funds, redemptions	*53,917*	*60,464*	*63,314*	*70,355*	*75,455*
Accumulated sinking fund balance	58,676	59,496	65,226	73,753	81,179
Debt—					
Due to government	55,783	55,301	57,342	58,339	60,171
Due to banks (net overdraft)	2,678	4,245	7,090	9,226	4,335
Due to public creditor(*a*)	950,513	1,031,619	1,114,762	1,211,401	1,324,816
Total debt(a)	*1,008,974*	*1,091,166*	*1,179,194*	*1,278,967*	*1,389,323*
Maturing overseas(*a*)(*b*)	15,400	10,043	9,686	4,329	3,557
SEMI-GOVERNMENT AND OTHER PUBLIC AUTHORITIES					
New money loan raisings—					
From government	147,492	142,131	142,445	143,074	164,315
From public	191,475	197,872	194,588	221,064	246,164
Total loan raisings	*338,967*	*340,003*	*337,034*	*364,138*	*410,479*
Funds provided for redemption—					
Government loans	19,008	20,904	23,995	25,459	28,112
Loans due to public	33,656	40,006	42,395	43,082	63,042
Total funds, redemptions	*52,664*	*60,910*	*66,389*	*68,541*	*91,154*
Accumulated sinking fund balance	128,881	141,926	159,463	177,944	195,363
Debt—					
Due to government	1,834,002	1,955,426	2,083,267	2,198,078	2,330,275
Due to banks (net overdraft)	1,318	1,125	652	7,462	7,029
Due to public creditor(*a*)	2,140,402	2,311,699	2,481,444	2,680,589	2,880,936
Total debt(a)	*3,975,722*	*4,268,250*	*4,565,363*	*4,886,130*	*5,218,239*
Maturing overseas(*a*)(*b*)	15,722	14,718	12,858	11,810	5,837

(*a*) *See* footnote (*a*) page 605. (*b*) Included in debt figures above.

Roads and bridges

Summary of roads open for general traffic

Tables showing road lengths in the several States and Territories classified according to class of road and surface of road may be found in Chapter 12, Transport, Communication, and Travel.

Aggregate net expenditure on roads and bridges in Australia

In most States there are three classes of authorities concerned with roads and bridges, the State Government, the central road authority, and numerous local government bodies. The Commonwealth Government, in addition to the grants it makes to the States for road purposes, is concerned with roads in the Northern Territory and the Australian Capital Territory and roads of access to Commonwealth property in the various States. Some information relating to Commonwealth grants to the States for road purposes and particulars of the expenditure on roads and bridges by local government bodies and the central road authorities are given in later sections of this chapter.

Most of these authorities may expend money directly on road construction or indirectly by means of grants and payments to other authorities. These indirect payments, if included in an aggregate, would duplicate expenditure; this together with the fact that some authorities are unable to supply separate information concerning their road expenditure, makes it difficult to compile precise statistics of aggregate expenditure on roads and bridges.

The information in the following table, which is partly estimated and which excludes the main indirect payments, provides an approximate measure of the aggregate net expenditure by the three classes of authorities mentioned above on roads and bridges in Australia during each of the years ended 30 June 1965 to 1969. Expenditure on roads by those authorities whose primary activity is directed towards functions other than roads, e.g. electricity, forestry, housing, etc., authorities, is not included. The figures cover expenditure on the construction, reconstruction and maintenance of roads and bridges, and direct administration but not debt charges. Because of the difficulties associated with the indirect payments mentioned above it is not possible to give separate net details for each authority.

PUBLIC AUTHORITY NET EXPENDITURE ON ROADS AND BRIDGES STATES AND TERRITORIES, 1964–65 TO 1968–69

($ million)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T. and A.C.T.*	*Aust.*
1964–65 .	149	112	71	38	34	18	10	432
1965–66 .	159	121	71	41	39	21	15	467
1966–67 .	164	129	79	47	47	20	12	497
1967–68 .	170	145	88	50	48	19	18	537
1968–69 .	183	166	92	50	43	20	23	578

Commonwealth Government grants

The following table shows the allocations to the States under the several Commonwealth Aid Roads Acts for road construction, maintenance, repair and other works connected with transport for each of the years 1964–65 to 1968–69. After 1 July 1959, when the *Commonwealth Aid Roads Act* 1959 came into operation, the Commonwealth made separate provision for expenditure on strategic roads and the promotion of road safety practices. *See also* the chapter Public Finance, and Finance bulletins.

ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE COMMONWEALTH AID ROADS ACTS, STATES, 1964–65 TO 1968–69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
1964–65 . .	36,346	25,576	23,670	14,902	23,006	6,500	130,000
1965–66 . .	39,191	27,508	25,538	16,024	24,739	7,000	140,000
1966–67 . .	41,744	29,443	27,415	17,222	26,676	7,500	150,000
1967–68 . .	44,467	31,286	29,266	18,384	28,597	8,000	160,000
1968–69 . .	47,319	33,113	31,098	19,433	30,537	8,500	170,000

New South Wales

Main roads administration is organised as a separate department under the control of a Commissioner. The activities of the Department of Main Roads include works on main, developmental, secondary and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed and maintained from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

In the County of Cumberland, which for the purposes of the Main Roads Act is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of main road and bridge construction, half the cost of secondary roads, and a proportion (in general, up to half) of the cost of tourist roads are met from the funds of the Department of Main Roads. The Councils do not contribute directly to the cost of these works but are required to pay a levy of 0.2083 cents in the $ on the unimproved capital value of rateable property within Council's area or at a uniform percentage determined annually by the Commissioner of between ten per cent and fifteen per cent of Council's total rate income, whichever is the less. In the former case the rate payable in respect of lands used principally for primary production is half the rate levied on other lands.

In country districts the Department meets the full cost of road and bridge works on State highways, the full cost of bridge construction works and three-quarters of the cost of road construction and road and bridge maintenance works on trunk roads, three-quarters of the cost of bridge construction works and two-thirds of the cost of road construction and road and bridge maintenance works on ordinary main roads, and, in most cases, up to half the cost of works on tourist roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition.

The funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act, 1958–1965, grants under Commonwealth Aid Roads Act (*see* page 607 and the Chapter, Public Finance), other grants from the State or Commonwealth Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act, 1924–1967. The State Government also makes repayable advances for Main Roads Department works, and since 1963 the Commissioner for Main Roads has had the power (with the approval of the Governor on the recommendation of the Treasurer) to borrow moneys. The figures shown below represent the aggregate revenue and expenditure of five funds: the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE AND EXPENDITURE, 1964-65 TO 1968-69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
REVENUE(*a*)					
Motor vehicle taxation, registration and licence fees	41,059	42,471	42,897	45,248	49,636
Commonwealth Aid Roads Acts	22,934	24,648	26,313	28,013	29,814
State and Commonwealth grants	70	35	63	..	..
Contributions by other departments and bodies	97	377	893	846	350
Local authorities' contributions—					
Under section 11 of Main Roads Act	5,768	6,418	7,600	8,241	7,538
Other	91	157	250	385	262
Sydney–Newcastle Expressway Toll	..	356	706	892	1,530
Other	531	539	564	652	859
Total	**70,549**	**75,001**	**79,285**	**84,278**	**89,989**
EXPENDITURE(*b*)					
Roads and bridges—					
Construction	56,153	61,714	62,590	64,534	67,950
Maintenance	16,514	15,813	17,677	17,352	19,719
Administration	3,425	3,757	4,296	4,816	5,379
Interest, exchange, etc., on debt	1,237	1,609	1,856	2,094	2,541
Other(*c*)	1,125	1,467	1,753	1,705	2,229
Total	**78,454**	**84,360**	**88,172**	**90,501**	**97,819**

(*a*) Excludes repayable advances by the State Government and private loans ($7,500,000 in 1964–65, $5,005,000 in 1965–66, $6,500,000 in 1966–67, $8,750,000 in 1967–68 and $12,900,000 in 1968–69), and transfers from Sydney Harbour Bridge Account for Expressway construction ($2,360,000 in 1964–65, $4,750,000 in 1965–66, $3,743,000 in 1966–67, $4,775,000 in 1967–68 and $900,000 in 1968–69). Expenditure from these amounts is fully reflected in Expenditure. (*b*) Excludes debt redemption ($210,000 in 1964–65, $441,000 in 1965–66, $346,000 in 1966–67, $477,000 in 1967–68 and $812,000 in 1968–69) and repayment of government advances ($1,020,000 in 1964–65, and $200,000 in 1965–66 and later years). (*c*) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in 'Roads and bridges'.

Toll facilities operated by the Department of Main Roads include the Sydney Harbour Bridge and the three completed sections of the Sydney-Newcastle Expressway.

The Sydney Harbour Bridge was opened for traffic on 19 March 1932, and has a main span of 1,650 feet with clearance for shipping of 170 feet. The deck, 160 feet wide, carries eight road traffic lanes, two railway tracks and two footways. During 1968–69, 42,558,984 road vehicles (excluding buses and exempt vehicles), 24,958,330 rail passengers and 12,403,394 bus passengers crossed the bridge. Income from tolls during 1968–69 amounted to $4,615,000, including road tolls $4,303,000, rail passenger tolls $284,000 and bus passenger tolls $28,000.

The three sections of the Sydney-Newcastle Expressway now open to traffic provide 14.5 miles of expressway conditions through very difficult terrain north of Sydney from an interchange between Cowan and Berowra north across the Hawkesbury River to Calga. Total cost of the project to 30 June 1969 was $28.7 million. Toll collections during the year ended 30 June 1969 amounted to $1,530,000.

Victoria

With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance; and to recommend deviations in existing roads or the construction of new roads in order to facilitate communications or to improve the conditions of traffic.

The funds of the Country Roads Board are derived principally from motor registration fees, two-thirds of additional registration fees (charged on initial registration or transfer), a proportion of drivers' licence fees, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, roads charges under the Commercial Goods Vehicles Act, repayments by municipalities and, since 1965, a share of the addition to registration fees paid to the Roads (Special Projects) Fund and a grant under the Public Works Loan Application Act. In addition, loans have been authorised from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' roads and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. Finance for the elimination of level crossings and for improved approaches, signs, lighting and other work to reduce danger at level crossings is derived mainly from the one third of additional registration fees paid into the Level Crossings Fund, maintained by the Board.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS 1964–65 TO 1968–69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
RECEIPTS					
Motor Car Act—registration and licence fees (less cost of collection)	23,378	24,690	25,866	26,784	28,878
Municipalities' payments	1,690	1,691	1,824	1,845	1,931
Commonwealth Aid Roads Acts	25,182	27,175	29,050	30,895	32,723
Roads (Special Projects) Fund	. .	1,654	3,311	2,652	3,055
Loans from State Government	762	1,020	834	987	3,389
Road charges, Commercial Goods Vehicles Act	5,926	6,379	6,732	7,248	7,842
Public Works Loan Application Act	700	768	715	700	784
Other	889	971	464	402	530
Total	**58,527**	**64,348**	**68,796**	**71,513**	**79,132**

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS
1964–65 TO 1968–69—*continued*
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways	17,081	17,704	19,674	19,003	18,349
Main roads	15,189	16,569	16,765	16,769	16,940
By-pass roads	4,854	3,745	5,172	7,969	11,682
Tourist roads	1,422	1,510	2,312	2,857	2,793
Forest roads	714	699	737	658	678
Unclassified roads	11,131	12,709	12,798	13,739	14,248
Other	167	140	45	82	86
Plant purchase	697	1,149	1,388	1,234	1,583
Interest, debt redemption, etc.	1,988	2,056	2,140	2,190	2,306
Office buildings, Kew—capital cost	71	12	31	8	59
Statutory payment to—					
Tourists' Resorts Fund	469	468	494	517	536
Transport Regulation Board	..	178	383	404	435
Administration and other	4,744	6,339	5,637	7,011	7,756
Total	**58,525**	**63,278**	**67,575**	**72,443**	**77,452**

The Melbourne and Metropolitan Board of Works bears the responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, and is now carrying out a programme of urgent highway works throughout the metropolitan area of Melbourne including the extension of the South-Eastern Freeway from Burnley to Tooronga (estimated cost $18m) and the Tullamarine Freeway to serve the new Tullamarine airport (estimated cost $20.7m). Expenditure on these projects up to 30 June 1969 was $36.7m. Of this amount, $15.2m was financed from the proceeds of the Board's Metropolitan Improvement Rate and $21.5m was contributed by the Treasurer of Victoria from the Roads (Special Projects) Fund.

The Lower Yarra Crossing Authority was incorporated in October 1965 as a company limited by guarantee and given powers under the *Lower Yarra Crossing Authority Act* 1965 to construct, operate and maintain a toll crossing over the lower reaches of the River Yarra. The estimated cost of the bridge and approaches is to be $42m. The bridge will provide eight traffic lanes and will have an overall length of 8,472 feet, the bridge structure being 2,782 feet with a main span of 1,102 feet; clearance is to be 176 feet. The bridge will be operated by the Authority for up to 40 years, after which it will be surrendered to the State of Victoria.

Queensland

The Department of Main Roads was constituted in February 1951 with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main developmental, and secondary roads; and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collection, fees, etc., under the Transport Acts, contributions under the Commonwealth Aid Roads Acts, and loans, grants and advances from the State Government. The total receipts and payments during each of the years 1963–64 to 1967–68 are shown below.

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS 1963–64 TO 1967–68

($'000)

	1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
RECEIPTS					
Motor vehicle registration, Transport Acts collections, fees, etc.	13,664	15,531	15,704	18,645	20,664
Loans from State Government	1,046	1,039	1,330	1,127	672
Grants from State Government	260	. .	586	1,785	2,420
Roads (Contribution to Maintenance) Act	2,558	3,027	3,142	3,592	3,918
Commonwealth Aid Roads and Works Act	24,877	27,919	29,188	31,707	33,075
Maintenance repayments—local authorities	1,586	1,125	1,125	1,192	1,400
Hire, rent, sales of plant, etc.	3,322	3,704	3,449	3,898	3,908
Other	2,126	2,043	2,066	2,755	2,895
Total	**49,439**	**54,388**	**56,590**	**64,701**	**68,952**
PAYMENTS					
Permanent road works and surveys(*a*)	34,345	39,993	35,356	40,141	41,931
Maintenance of roads	6,507	6,466	6,876	8,310	9,095
Plant, machinery, buildings, etc. (including plant maintenance)	3,351	3,735	4,418	3,716	4,407
Loans—					
Interest	132	203	276	301	338
Redemption	666	697	432	396	954
Administration and other	4,828	5,618	7,104	9,000	10,706
Total	**49,829**	**56,712**	**54,462**	**61,864**	**67,431**

(*a*) Includes grants to local authorities for road purposes.

South Australia

The Highways Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads and Transport, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to councils for roadworks and supervise the expenditure of these grants, and assist Councils to purchase road-making plant and to defray the cost of roadworks. In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads. Funds of the Department are derived mainly from the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils, and contributions by the Municipal Tramways Trust, and from contributions under the Commonwealth Aid Roads Acts.

The following table shows particulars of receipts and payments, during the years 1964–65 to 1968–69, of funds controlled by the Highways Department.

HIGHWAYS DEPARTMENT, SOUTH AUSTRALIA RECEIPTS AND PAYMENTS, 1964–65 TO 1968–69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
RECEIPTS					
Motor vehicles registration, licences, fees	10,731	11,206	11,506	11,858	12,536
Commonwealth Aid Roads Acts	14,903	16,024	17,223	18,384	19,433
Other(*a*)	2,696	3,340	3,496	3,693	3,799
Total	**28,330**	**30,570**	**32,225**	**33,934**	**35,767**
PAYMENTS					
Construction and reconstruction of roads and bridges(*b*)	18,409	20,912	22,834	20,799	23,837
Maintenance(*a*)(*b*)	5,198	5,375	6,000	7,128	8,211
Recoups to Consolidated Revenue Fund—interest, debt redemption and exchange	1,164	1,167	514	518	522
Advances to local and semi-governmental authorities	1,126	1,376	1,091	1,386	1,253
Repayments to Revenue under Section 31 (a), Highways Act	..	..	1,000	240	..
Stores, plant, machinery, suspense accounts, etc.(*c*)	919	1,214	1,792	2,866	–105
Total	**26,816**	**30,044**	**33,231**	**32,936**	**33,718**

(*a*) Includes reimbursement works for Commonwealth Government. (*b*) Includes administration expenses. (*c*) Represents gross repayments less recoveries by charges to works on account of depreciation and materials used.

Western Australia

Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government, through the Main Roads Department, and by local government authorities throughout the State. The Department operates under the *Main Roads Act*, 1930–1969, and is administered by a Commissioner of Main Roads responsible to the Minister for Works. The Act makes provision for the construction and maintenance of public roads in the categories of main roads, controlled-access roads and developmental roads. An additional category, that of important secondary roads, is used by the Department in determining its works programme. Within its own district each local government authority is reponsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authority is required by the Main Roads Act to maintain any developmental road situated in its district.

The funds of the Main Roads Department are derived principally from allocations made under the *Commonwealth Aid Roads Act* 1969 under which Western Australia has been allotted grants totalling $200,400,000 for the five-year period commencing 1 July 1969. During the five years ended 30 June 1969 Western Australia received $133,555,000 under the Commonwealth Aid Roads Act of 1964 of which $121,961,000 was made available to the Main Roads Department. In addition special Commonwealth assistance is given for the improvement of roads used for the transport of beef cattle in the Kimberley District. For the six-year period ended 30 June 1967 grants totalling $8,400,000 were received from the Commonwealth for this purpose, and were matched by a corresponding State contribution. In a further seven-year period to 30 June 1974 grants totalling a maximum of $9,500,000 are to be distributed, including $1,400,000 received in 1967–68 and $1,451,000 received in 1968–69. Other sources of income include a portion of vehicle licence fees collected by local government authorities and the Commissioner of Police, overload permit fees and an allocation from drivers' licence fees. Further moneys for expenditure on road maintenance are available under the *Road Maintenance* (*Contribution*) *Act* 1965 administered by the Commissioner of Transport. Receipts and payments for the years 1964–65 to 1968–69 are shown in the following table.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS, 1964–65 TO 1968–69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
RECEIPTS					
Motor vehicle registration, licence fees, etc.	3,370	4,054	3,820	3,868	4,435
Commonwealth Aid Roads Acts	21,945	22,618	23,475	24,307	25,148
Commonwealth Aid Roads Acts—matching grants	. .	463	763	1,202	2,040
Western Australia Grant (Beef Cattle Roads) Act	1,500	1,500	1,500	. .	. .
State Grants (Beef Cattle Roads) Act	. .	. .	. .	1,400	1,451
Road Maintenance (Contribution) Act	. .	392	2,540	2,873	3,210
Recoups from other authorities	1,455	917	1,821	1,469	2,488
Other	52	(*a*)2,024	176	272	299
Total	**28,322**	**31,968**	**34,095**	**35,391**	**39,071**
PAYMENTS					
Construction and reconstruction of roads and bridges(*b*)	18,110	21,012	26,009	24,846	27,456
Maintenance of roads and bridges(*b*)	2,196	1,856	3,010	3,294	4,452
Recoups to local authorities(*c*)	2,939	3,501	3,518	4,307	. .
Transfer to State Consolidated Revenue	195	253	258	258	258
Plant, machinery, etc.	1,587	1,709	1,789	2,046	516
Other(*b*)	1,530	1,861	1,678	1,642	3,760
Total	(*d*)**26,557**	**30,192**	**36,262**	**36,393**	**36,442**

(*a*) Includes $1,896,000 transferred from an Overhaul Account previously administered by the Public Works Department. (*b*) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials. (*c*) Consists of payments to local authorities for work carried out on behalf of the Main Roads Department. For 1968–69 these payments have been included in 'Construction and reconstruction of roads and bridges' and 'Maintenance of roads and bridges'. (*d*) Excludes $1,000,000 refund of advance from State Treasury.

Tasmania

Under the *Road Construction (Transfer of Functions) Act* 1951, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorised by the Minister in respect of roads classified as State highways, tourist and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the Road Construction (Transfer of Functions) Act for certain works authorised by the Transport Commission to be carried out and constructed by the Department. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

The table following shows particulars of the receipts and payments of the combined Road Funds for the years 1964–65 to 1968–69.

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS, 1964–65 TO 1968–69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
RECEIPTS					
Motor vehicle taxation and registration, licences, fees, fines, etc.	3,153	3,425	3,961	4,396	4,587
Commonwealth Aid Roads and Works Acts	6,500	7,000	7,500	8,000	8,500
Recoups from local authorities, etc.	16	18	38	32	70
State Loan Fund	3,468	4,446	1,693	1,188	739
Hire of plant and workshop charges	3,329	3,732	3,824	4,170	4,129
Other	(*a*)1,295	220	262	565	304
Total	**17,761**	**18,842**	**17,279**	**18,350**	**18,329**
PAYMENTS					
Construction and reconstruction of roads and bridges	11,420	11,591	9,445	10,214	9,434
Maintenance of roads and bridges	2,552	3,141	3,167	3,436	3,540
Other works connected with transport	76	62	45	48	73
Grants to local authorities	15	35	37	46	54
Purchase, maintenance and operation of plant	3,402	3,751	3,884	4,276	4,392
Other	383	300	759	346	339
Total	**17,848**	**18,881**	**17,337**	**18,367**	**17,833**

(*a*) Includes Commonwealth Employment Stimulation Grant, $14,946.

Water supply, sewerage and drainage

The information in this section relates primarily to the metropolitan areas and provincial cities and towns. For information on water supply and irrigation in rural areas *see* Chapter 24, Water Conservation and Irrigation.

New South Wales

The two largest domestic water supply and sewerage systems are controlled by statutory boards each consisting of a president and a vice-president appointed by the State Government, and five members elected by local councils. These are (*a*) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e. in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, Shellharbour and Kiama, and (*b*) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill and Cobar similar boards include representatives of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

Metropolitan and Hunter District water supply. The storage reservoirs of the *metropolitan water supply system* with a combined available capacity of 574,335 million gallons, drain catchment areas of 3,890 square miles (including Warragamba, 3,480 square miles, Upper Nepean, 347 square miles, and Woronora, 29 square miles). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October 1960. This dam, constructed in concrete, has a storage capacity of 452,505 million gallons. Its safe net draught is estimated to be 274 million gallons a day. At 30 June 1969 there were 175 service reservoirs in use with a combined capacity of 706 million gallons. Rating for water for 1968–69 was 3.75 cents in the $ of 'assessed annual value'. The payment of the rate entitled the user to an amount of water calculated at 1,000 gallons per 30 cents. For water in excess of this allowance a further charge of 30 cents per 1,000 gallons was made. Fluoridation of the metropolitan water supply commenced in April 1968.

The water supply of the *Hunter District system* is drawn principally from three sources; the Chichester Reservoir, with a storage capacity of about 3,902 million gallons and draining a catchment of 76 square miles, the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens, and the Grahamstown Water Supply Scheme which is still being developed. Another source of supply is provided by the Nelson Bay-Anna Bay Scheme. Service reservoirs and tanks distributed throughout the water supply district have a total storage capacity of 126 million gallons.

The following tables show, for the Metropolitan and Hunter District systems, the number of properties, the estimated population supplied, and other details.

METROPOLITAN WATER SUPPLY(*a*), NEW SOUTH WALES: SERVICES, 1964-65 TO 1968-69

Year	*Improved properties for which water mains available*	*Estimated population supplied*	*Average daily consumption*	*Total consumption for the year*	*Average daily consumption*		*Length of mains*	*Number of meters*
					Per property	*Per head of estimated population*		
		'000	mill gal	mill gal	gallons	gallons	miles	
1964–65 .	693,185	2,660	290	105,892	418	109	7,649	479,321
1965–66 .	712,059	2,723	230	83,802	323	84	7,972	495,850
1966–67 .	735,360	2,756	234	85,383	318	85	8,105	515,653
1967–68 .	756,063	2,816	270	98,981	357	96	8,325	532,859
1968–69 .	775,548	2,885	302	110,347	389	106	8,534	550,017

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

HUNTER DISTRICT WATER SUPPLY(*a*): SERVICES, 1964-65 TO 1968-69

Year	*Properties supplied*	*Estimated population supplied*	*Average daily consumption*	*Total consumption for year*	*Average daily consumption*		*Length of mains*
					Per property	*Per head of estimated population*	
			mill gal	mill gal	gallons	gallons	miles
1964–65 . .	93,646	316,625	41.5	15,139	443	131	1,623
1965–66 . .	94,779	320,451	32.8	11,970	346	102	1,673
1966–67 . .	96,755	327,514	31.6	11,521	326	96	1,702
1967–68 . .	99,066	335,565	37.4	13,675	377	111	1,740
1968–69 . .	100,941	342,167	42.5	15,513	421	124	1,786

(*a*) Newcastle, Maitland and Cessnock areas.

Metropolitan and Hunter District sewerage and drainage systems. The *metropolitan sewerage and drainage system* serving Sydney and suburbs comprises 3 major sewerage systems and 9 minor systems, consisting of 7 outfalls discharging directly into the Pacific Ocean and 5 treatment works. There are also 8 centres outside the metropolitan area of which 5 (Camden, Campbelltown, St Mary's, Richmond and Warragamba township) are served by local treatment works and 3 (Bellambi, Port Kembla and Wollongong) discharge directly into the Pacific Ocean. Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30 June 1969 were 186 miles long.

The main sewerage system of the *Hunter District* serves the City of Newcastle and discharges into the Pacific Ocean at Burwood Beach. There are also local treatment works at Maitland, Cessnock and some of the outlying districts. Sewerage rates for 1968-69 were 5.0923 cents in the $ of 'assessed annual value', and drainage rates (on certain areas served) 0.5208 cents in the $.

The following table gives details of sewerage services and stormwater drains of the Metropolitan system.

METROPOLITAN SEWERAGE AND DRAINAGE(*a*) NEW SOUTH WALES: SERVICES, 1965 TO 1969

30 June—	*Improved properties for which sewerage available*	*Estimated population served*	*Length of sewers*	*Length of stormwater channels*
		'000	miles	miles
1965 . . .	501,389	1,930	5,328	179
1966 . . .	524,225	2,000	5,585	181
1967 . . .	547,630	2,052	5,881	182
1968 . . .	574,847	2,135	6,166	184
1969 . . .	602,312	2,235	6,504	186

(*a*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

At 30 June 1969, 80,911 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle-Maitland-Cessnock areas). The total length of sewers under the Board's control was 1,116 miles, and the length of drains was 52 miles.

Metropolitan and Hunter District systems' finances. The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1968-69, and for the three services combined for the years 1964-65 to 1968-69.

METROPOLITAN AND HUNTER DISTRICT WATER SUPPLY, SEWERAGE AND DRAINAGE, NEW SOUTH WALES: FINANCES, 1964-65 TO 1968-69

($'000)

Year	*Capital debt at 30 June*	*Revenue*	*Expenditure*				*Surplus (+) or deficit (−)*
			Working expenses (a)	*Interest and exchange*	*Debt redemption*	*Total*	
METROPOLITAN(*b*)							
1968–69—							
Water	331,483	42,913	21,587	15,794	5,522	42,903	+ 10
Sewerage	246,939	35,175	18,890	11,827	4,453	35,170	+ 5
Drainage	12,447	2,118	1,388	595	130	2,113	+ 6
Total, 1968–69 .	**590,869**	**80,206**	**41,865**	**28,216**	**10,105**	**80,185**	**+ 21**
1967–68 .	550,793	68,917	31,765	26,389	10,754	68,908	+ 9
1966–67 .	513,816	62,701	28,914	24,132	9,635	62,681	+ 20
1965–66 .	475,200	58,092	27,169	22,166	8,743	58,078	+ 14
1964–65 .	440,941	54,890	26,846	20,166	7,861	54,873	+ 17
HUNTER DISTRICT(*c*)							
1968–69—							
Water	63,645	6,461	2,894	2,908	656	6,458	+ 3
Sewerage	21,550	3,002	1,722	1,015	260	2,997	+ 5
Drainage	989	159	106	50	9	165	− 7
Total, 1968–69 .	**(*d*)89,835**	**9,621**	**4,722**	**3,973**	**925**	**9,620**	**+ 2**
1967–68 .	(*d*)84,698	8,651	4,106	3,740	843	8,688	− 38
1966–67 .	(*d*)79,497	7,928	3,786	3,254	765	7,805	+122
1965–66 .	(*d*)74,593	7,804	3,469	3,442	861	7,772	+ 32
1964–65 .	(*d*)69,705	6,508	3,099	2,808	701	6,607	− 99

(*a*) Includes provision for renewals, long service leave, etc. (*b*) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires. (*c*) Newcastle-Maitland-Cessnock areas. (*d*) Includes General Fund indebtedness not dissected by services.

Local government country water supply and sewerage systems. At 31 December 1966, country water supply services were conducted or under construction by 48 municipalities, 92 shires and 6 county councils, and country sewerage services by 51 municipalities and 46 shires. The capital indebtedness of these schemes was $103,776,000 at 31 December 1966, namely $69,251,000 for water and $34,525,000 for sewerage. Debt of the municipalities amounted to $50,080,000, shires to $41,200,000, and county councils to $12,496,000. Government advances amounting to $622,000 are included in these figures. Aggregate income and expenditure amounted to $17,702,000 and $13,510,000, respectively, in 1966.

Other country water supply and sewerage systems. The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31 December 1968 was $5,858,000. In 1968, income (excluding subsidies, State Government $204,000 and mining companies $553,000) amounted to $715,000 and expenditure (excluding debt redemption $283,000) amounted to $1,184,000. The Cobar Water Board was constituted in February 1964. At 31 December 1968 its capital indebtedness was $2,332,000. The following country water supply systems—South-West Tablelands, Junee, and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Electricity Commission of New South Wales, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was $15,088,000 at 31 December 1968. The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

Victoria

Melbourne and Metropolitan Board of Works. The Board consists of a Chairman and fifty-two Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The principal functions of the Board are: to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; to control and manage the rivers, creeks and watercourses within the metropolitan area; and to carry out the functions of a permanent planning authority.

Metroplitan water supply. There are 6 storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourrong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 930 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,765 million gallons (65,452 million gallons). Service reservoirs number 49, with a total capacity of 373 million gallons. The water rate levied by the Board in 1968–69 was 2.5 cents in the $ on the net annual value of the properties served. The charge for water consumed in excess of the quantity which, at 20 cents per 1,000 gallons, would equal the assessed water rates on each property, was 20 cents per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1964–65 to 1968–69.

MELBOURNE WATER SUPPLY: SERVICES, 1964-65 TO 1968-69

Year	Number of houses supplied	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of aqueducts, etc. mains and reticulation	Number of meters
					Per house	Per head of estimated population		
		'000	mill gal	mill gal	gallons	gallons	miles	
1964–65 .	595,727	2,079	168.2	61,409	282	80.9	6,098	511,077
1965–66 .	612,844	2,120	178.7	65,218	292	84.2	6,280	536,093
1966–67 .	626,690	2,143	188.5	68,815	301	88.0	6,517	559,713
1967–68 .	642,039	2,170	139.0	50,876	216	64.1	6,791	577,713
1968–69 .	658,944	2,227	173.4	63,288	263	77.9	7,034	595,560

Metropolitan sewerage and drainage. Particulars of sewerage and drainage services for 1964–65 to 1968–69 are shown on the next page.

MELBOURNE SEWERAGE AND DRAINAGE: SERVICES, 1964–65 TO 1968–69

Year	*Number of houses for which sewers are provided*	*Estimated population for which sewers are provided*	*Average daily pumping*	*Total sewage pumped for the year*	*Average daily pumping*		*Length of sewers, etc.*	*Length of main drains*
					Per house	*Per head of estimated population*		
		'000	mill gal	mill gal	gallons	gallons	miles	miles
1964–65 .	453,078	1,491	93.6	34,152	206.5	62.8	4,113	218
1965–66 .	467,705	1,599	94.6	34,545	202.4	59.2	4,311	229
1966–67 .	484,798	1,629	98.1	35,793	202.3	60.2	4,554	233
1967–68 .	509,185	1,719	86.1	31,514	169.1	50.1	4,739	240
1968–69 .	528,983	1,788	96.7	35,300	182.8	54.1	4,906	250

The metropolitan sewerage system consists of the main system (serving an area of 115,751 acres) and 6 subsidiary systems—the Braeside system (serving an area of 6,589 acres), the Kew system (serving an area of 112 acres), the Maribyrnong system (serving an area of 182 acres), the Watsonia system (serving an area of 253 acres), the Lower Plenty system (serving an area of 1,400 acres), and the Heatherton system (serving an area of 1,136 acres). The Board of Works Farm, 26,809 acres in extent and situated about twenty-four miles south west of Melbourne beyond the township Werribee, serves to purify and dispose of approximately ninety-seven per cent of the sewerage flow of the metropolis before its discharge into Port Philip Bay.

Melbourne and Metropolitan Board of Works' finances. The following table provides for the year 1968–69 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1964–65 to 1968–69. The financial operations of the Board as the Authority responsible for metropolitan highways and bridges are referred to on pages 609–10.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES
1964–65 TO 1968–69
($'000)

Service, etc.	*Capital cost of works and buildings at 30 June (a)*	*Revenue*	*Expenditure*				*Surplus (+) or deficit (−)*
			Working expenses	*Interest and exchange*	*Debt redemption*	*Total*	
Water	177,612	16,007	6,431	8,656	. .	15,087	+920
Sewerage . . .	221,502	21,503	6,990	11,071	. .	18,061	+3,442
Drainage . . .	35,654	4,471	1,903	1,457	. .	3,360	+1,111
General(*b*) . . .	14,565	. .	2,436	. .	3,239	5,675	−5,675
Total—1968–69 .	**449,333**	**41,981**	**17,760**	**21,184**	**3,239**	**42,183**	**−202**
1967–68 .	411,221	35,587	14,989	19,258	2,685	36,932	−1,345
1966–67 .	376,271	32,111	12,333	17,834	2,552	32,719	−608
1965–66 .	345,210	30,165	11,362	16,526	2,274	30,162	+3
1964–65 .	314,972	25,307	9,308	14,856	1,960	26,124	−817

(*a*) Total loan indebtedness—1968–69, $416,578,399. (*b*) Statutory and general expenditure not distributed over services.

State Rivers and Water Supply Commission. Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is under the jurisdiction of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission, and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection, and river improvements, are described in the chapter, Water Conservation and Irrigation. This section is therefore confined to the Commission's functions in connection with urban water supply and sewerage.

Extra-metropolitan water supply. At 30 June 1969 the Commission provided a reticulated water supply from its own works to 148 cities and towns having a combined population of 235,000 persons. The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 116,000 people supplied); Bendigo, Castlemaine, etc. (58,500); and about 8,700 people in the Western District. In addition, 14,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributory system from headworks controlled by the Geelong Waterworks and Sewerage Trust. The Bendigo-Castlemaine supply also provides for the irrigation of 9,000 acres as well as urban requirements in the area. Outside these areas the Commission supplies mainly small towns in the north of the State in areas where it also supplies farms with water for irrigation or domestic and stock purposes. Capital expenditure by the Commission on urban water supply at 30 June 1969 was divided between the several systems as follows: Mornington Peninsula, $31,380,000, Bendigo-Castlemaine, $10,918,000 (includes the cost of supplying a comparatively large rural system with water for irrigation, stock and domestic purposes); Bellarine Peninsula, $3,576,000; Otway System (Western District), $3,169,000; other $3,199,000; total, $52,243,000. This expenditure is net of redemption payments and includes expenditure on Lake Eppalock and Tarago Reservoir not yet charged to the water users. In addition to the towns supplied by the Commission there are some 671,000 people in 256 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the Government subsidises their capital expenditure. Most new works are financed from Government loan funds, but the Geelong Trust and in recent years some other local authorities borrowed money privately. In most cases the local authority controls both headworks and distribution system, but several towns draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply 404 urban centres containing some 907,000 people. Very few towns of any importance are now without reticulated water supply.

Extra-metropolitan sewerage systems. With the exception of the town of Eildon, whose sewerage system is controlled directly by the State Rivers and Water Supply Commission, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board, which have special Acts dealing with their activities, all sewerage authorities operate under the Sewerage Districts Act. At 30 June 1969, 97 sewerage authorities had been constituted. Of these 73 had systems in operation and 12 had works under construction.

Expenditure on sewerage in Victorian country towns at 30 June 1969 was approximately $86,308,000, of which some $70,132,000 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about $1,325,000, provided mainly in the form of subsidies on interest rates paid along the same lines as for town water supply.

The *Geelong water supply scheme*, operated by the Geelong Waterworks and Sewerage Trust, comprises two systems for gathering and storing water, the water in both systems being brought over fifty miles to Geelong. There are 8 storage reservoirs and 11 service basins whose total storage capacity is 13,446 million gallons. The length of water mains and reticulation is 569.4 miles. The total expenditure on water supply to 30 June 1969 was $18,849,465. General fund expenditure for 1968–69 comprised $505,443 for working expenses and $1,274,377 for interest, redemption and reserves, while revenue from water rates amounted to $1,761,809. The sinking fund appropriations at June 1969 amounted to $1,318,581. The replacement and contingencies reserve amounted to $1,479,048.

The *Geelong Waterworks and Sewerage Trust sewerage scheme* consists of a main outfall sewer to the ocean and 352.2 miles of main and reticulation sewers. The sewerage area is 21,220 acres, and the number of buildings connected within the sewered areas is 29,357. The total expenditure on sewerage works to 30 June 1969 was $13,515,202. The revenue from sewerage rates in 1968–69 amounted to $1,160,657, and the general fund expenditure comprised $308,418 on working expenses and $850,934 on interest, redemption, and reserves. Sinking fund appropriations at 30 June 1969 were $668,414. Replacement and contingencies reserve amounted to $1,393,910.

The *Ballarat water supply district* comprises an area of about 65 square miles, containing a population of about 65,800. The total storage capacity of the 7 reservoirs is 5,435 million gallons and the catchment area is 24,182 acres. The capital cost of construction of the waterworks was $6,284,703 to 31 December 1969. The liabilities amounted to $3,933,070 at 31 December 1969, including loans due to the Government totalling $3,569,387. The revenue from rates and metered sales for the year 1969 was $521,016. Working expenses during 1969 amounted to $276,073 and interest and other charges to $244,902.

The *Ballarat sewerage district* comprises the City of Ballarat, the Borough of Sebastopol, and parts of the Shires of Ballarat, Bungaree and Grenville. There are more than 225 miles of sewers. The capital cost of sewerage construction works to 31 December 1969 was $5,834,153. Assessments in the sewerage district numbered 20,590 while those in sewered areas numbered 19,100. There were 16,419 buildings connected. The liabilities on account of loans secured for construction at 31 December 1969 amounted to $4,919,330, redemption payments at that date totalled $978,497. House connections financed by the Authority numbered 4,674. Revenue from rates during 1969 amounted to $538,553, and expenditure, which included $345,074 for interest and redemption, was $538,226.

The *Latrobe Valley Water and Sewerage Board* constructs and operates water supply works within the Latrobe Valley. The main construction activities have been centred on the new township of Churchill, the total capital cost of construction activities to 30 June 1969 being $11,578,823. Liabilities amounted to $12,260,365, including loans due to the Government totalling $11,192,657. Revenue for the year was $739,202. Expenditure during 1968–69 amounted to $582,198 including interest on loans amounting to $335,099. The Board does not strike a rate, but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30 June 1969 was 13,425 million gallons.

The *Latrobe Valley sewerage system* consists of a main outfall sewer, about 52 miles in length, to convey wastes to an area where they are disposed of on land for agricultural purposes. The capital cost of the sewerage construction works to 30 June 1969 was $6,925,535. Liabilities amounted to $7,561,811, including loans due to the Government totalling $6,044,081. Revenue in 1968–69 was $326,948 and expenditure totalled $534,801, including interest on loans $111,916. No sewerage rate is levied, but a charge is made by measure for wastes both from industries and public authorities.

Queensland

The *Brisbane City Council* operates the water supply and sewerage systems of the City of Brisbane, and also supplies, in bulk, the whole of the water used by the City of Ipswich and a portion of that used by the City of Redcliffe and Albert Shire Council. Redcliffe supplements its supply from that of the Pine Rivers Shire Council, while Albert also draws on its own reservoirs. Storage facilities for *Brisbane water supply* comprise the following (available capacities are shown in parentheses): Somerset Reservoir, 200,000 million gallons (67,500 million gallons); Lake Manchester, 5,800 million gallons (5,720 million gallons); Brisbane River, Mount Crosby Weir, 540 million gallons (500 million gallons); Pure Water Reservoir, Holt's Hill, 11 million gallons (11 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are 23 service reservoirs with a capacity of approximately 69 million gallons. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 67,500 million gallons to be for water storage and 132,500 million gallons for flood mitigation. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich, Redcliffe, and portion of Albert Shire) for the years 1964–65 to 1968–69.

BRISBANE WATER SUPPLY(*a*): SERVICES, 1964–65 TO 1968–69

Year	*Services connected*	*Estimated population supplied*	*Average daily consumption*	*Total consumption for the year*	*Average daily consumption*		*Length of trunk and reticulation mains*
					Per service	*Per head of estimated population*	
			mill gal	mill gal	gallons	gallons	miles
1964–65 . .	193,471	703,258	61.4	22,409	317	87.3	2,564
1965–66 . .	197,707	722,970	67.6	24,668	342	93.5	2,666
1966–67 . .	202,886	740,332	66.1	24,110	326	89.2	2,735
1967–68 . .	207,657	759,434	76.7	27,984	369	101.0	2,823
1968–69 . .	213,445	772,356	85.4	31,170	400	110.6	2,834

(*a*) Includes Ipswich, Redcliffe and portion of Albert Shire.

The sewage treatment works of the *Brisbane sewerage scheme* is situated at Luggage Point at the entrance to the Brisbane River. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1964–65 to 1968–69.

BRISBANE SEWERAGE: SERVICES, 1964–65 TO 1968–69

Year	*Premises connected*	*Estimated population served*	*Total sewage pumped for the year*	*Length of main, branch, reticulation, etc. sewers*
			mill gal	miles
1964–65 . .	84,390	312,243	7,190	1,222
1965–66 . .	90,940	336,478	8,821	1,341
1966–67 . .	102,062	377,629	9,042	1,472
1967–68 . .	109,364	404,647	8,358	1,607
1968–69 . .	122,690	453,953	8,619	1,824

Brisbane City Council water supply and sewerage systems—finances. The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1964–65 to 1968–69.

BRISBANE WATER SUPPLY AND SEWERAGE: FINANCES, 1964–65 TO 1968–69

($'000)

Service and year	*Gross capital cost to 30 June*	*Revenue*	*Expenditure*			*Surplus (+) or deficit (−)*
			Working expenses	*Interest, redemption, etc. charges*	*Total(a)*	
Water supply—						
1964–65 . . .	49,768	7,030	2,827	2,436	5,889	+ 1,141
1965–66 . . .	54,635	8,365	3,069	2,503	8,471	− 106
1966–67 . . .	59,947	8,977	3,414	2,630	8,803	+ 174
1967–68 . . .	64,626	9,808	3,661	2,760	9,132	+ 676
1968–69 . . .	69,719	10,214	3,994	2,835	9,334	+ 880
Sewerage—						
1964–65 . . .	50,184	3,664	803	1,705	3,434	+ 230
1965–66 . . .	55,858	4,829	882	1,829	4,172	+ 657
1966–67 . . .	61,517	5,535	1,024	1,966	4,709	+ 826
1967–68 . . .	69,264	7,237	1,105	2,225	6,619	+ 618
1968–69 . . .	72,123	8,404	1,250	2,443	7,696	+ 708

(*a*) Total, including other expenditure.

Country towns. In addition to the City of Brisbane, there were at 30 June 1968, 233 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils. At 30 June 1968 there were 59 cities or towns in addition to Brisbane with sewerage systems. The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to $9,532,643 in 1967–68. Expenditure amounted to $9,522,082, including $4,110,867 for debt charges. In addition, expenditure from loans and loan subsidy amounted to $10,579,300. Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

South Australia

The water supply and sewerage systems in this State were constructed mainly, and are maintained by the Engineering and Water Supply Department, under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula, and other country water districts systems, the Morgan–Whyalla water supply system, the metropolitan and country sewerage systems, the Metropolitan Flood Waters

Scheme, and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are administered by the Department of Lands in conjunction with irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities.

Adelaide waterworks. At 30 June 1969 the Adelaide waterworks supplied districts covering 384 square miles of the metropolis and extending to near country areas. The capacity of reservoirs and storage tanks was 36,534 million gallons and there were 3,554 miles of metropolitan mains. The Mannum–Adelaide pipeline conveys water from the River Murray to Adelaide at a rate of up to 66 million gallons a day. Water is delivered to a terminal storage near Adelaide and hence to the metropolitan distribution system or alternatively it can be delivered into metropolitan reservoirs on the River Torrens or to reservoirs on the River Onkaparinga by further pumping. The pipeline also supplies various country areas along and extending from its route.

ADELAIDE WATERWORKS: FINANCES, 1964–65 TO 1968–69 ($'000)

Year	Invested capital at 30 June (a)	Revenue	Expenditure			Surplus (+) or deficit (—)
			Working expenses (b)	Interest	Total	
1964–65 . . .	92,872	8,417	4,222	3,907	8,129	+ 289
1965–66 . . .	98,056	9,521	5,292	4,248	9,540	— 19
1966–67 . . .	104,067	11,083	5,142	4,500	9,642	+ 1,441
1967–68 . . .	108,936	10,267	6,746	4,730	11,476	— 1,209
1968–69 . . .	114,121	10,793	5,552	4,919	10,471	+ 322

(a) After deduction of depreciation. (b) Includes debt redemption.

Adelaide metropolitan sewerage system. The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide, Christies Beach, and Salisbury–Elizabeth areas of 184 square miles in all, includes treatment works at Glenelg, Port Adelaide, Bolivar, and Christies Beach. Financial and other particulars for 1964–65 to 1968–69 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY, 1964–65 TO 1968–69

Year	Length of sewers	Number of connections	Invested capital at 30 June(a)	Revenue	Expenditure			Surplus
					Working expenses (b)	Interest	Total	
	miles		$'000	$'000	$'000	$'000	$'000	$'000
1964–65 . .	1,854	204,128	47,127	5,513	2,363	1,380	3,743	1,769
1965–66 . .	1,952	213,375	56,235	6,386	2,614	1,561	4,175	2,211
1966–67 . .	2,039	220,799	66,158	6,804	2,880	2,195	5,075	1,729
1967–68 . .	2,125	227,489	74,808	7,156	3,375	2,822	6,197	959
1968–69 . .	2,193	234,818	78,141	7,601	3,463	3,073	6,536	1,065

(a) After deduction of depreciation. (b) Includes debt redemption.

Country sewerage schemes. Sewerage schemes are operating at Port Lincoln, Naracoorte, Mount Gambier, Lobethal, Gumeracha, Nangwarry, Mount Burr, Myponga, Mannum, Whyalla and Angaston. At Port Lincoln and Mount Gambier the sewers discharge to ocean outfalls, and treatment works are used on the other systems. There are 248 miles of sewers and 12,939 connections in the country systems. Sewerage schemes for Murray Bridge and Millicent are under construction and operating in part.

Country water supply. Water districts systems at 30 June 1969 comprised an area of 14,037,000 acres. Supply came from reservoirs having a total capacity of 20,995 million gallons, from the River Murray, and from underground sources. Apart from local supplies, water from the River Murray is distributed over wide areas through the Mannum–Adelaide, Morgan–Whyalla, Swan Reach–Stockwell and Tailem Bend–Keith pipelines and branches of these pipelines. The principal areas of underground supplies are in the south-east of the State, where water from the Murray Basin can be had at moderate depths or from lakes, and from sand beds on Eyre Peninsula. In the year 1968–69 supplies made to Mount Gambier, Naracoorte and other towns amounted to 1,125 million gallons, and the Uley-Wanilla, Lincoln and Polda Basins contributed 499 million gallons to the Tod River Water District.

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES, 1964–65 TO 1968–69
($'000)

Year	Invested capital at 30 June(a)	Revenue	Expenditure			Deficit
			Working expenses (b)	Interest	Total	
1964–65	96,333	3,538	4,253	3,787	8,040	4,502
1965–66	103,772	3,872	4,553	4,128	8,681	4,809
1966–67	109,701	4,591	4,817	4,437	9,254	4,663
1967–68	117,541	4,340	5,262	4,954	10,216	5,876
1968–69	123,870	4,722	5,236	5,284	10,520	5,798

(*a*) After deduction of depreciation. (*b*) Includes debt redemption.

Morgan–Whyalla water supply scheme. This scheme, which has 223 miles of main via Port Augusta and 176 miles of main via the Spencer Gulf undersea crossing, was officially opened on 31 March 1944, the capital invested to 30 June 1969 being $35,500,000. Apart from supplying Whyalla, the mains have been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla, Port Pirie and Port Augusta. During 1968–69 water used from the scheme amounted to 3,618 million gallons.

Western Australia

The principal water supply systems of Western Australia are under the control of two State authorities, the Metropolitan Water Supply, Sewerage and Drainage Board and the Department of Public Works and Water Supply. The area which constitutes the territory administered by the Board encompasses approximately 1,270 square miles and extends from Perth southward to Rockingham and Serpentine, northward to Sorrento, and eastward to Sawyers Valley and Kalamunda. The Department of Public Works and Water Supply controlls the Goldfields and Agricultural Water Supply and the Great Southern Towns Water Supply as well as 114 local water supplies (*see also* Chapter 24, Water Conservation and Irrigation). Four independent town schemes are controlled by local Water Boards in country areas, and individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes, and agricultural areas, mainly from dams, tanks, wells and bores.

Metropolitan water supply, sewerage and drainage. The sources of the metropolitan water supply are Serpentine Reservoir and Serpentine Pipehead Reservoir, Canning Reservoir, Wungong Brook Diversion Weir, Churchman Brook Reservoir, and Victoria Reservoir. The largest of these sources are the Serpentine Reservoir and the Canning Reservoir, which have a capacity of 39,000 million gallons and 20,550 million gallons respectively. Water from storages on the Darling Range is conveyed to service reservoirs to serve the City of Perth and the metropolitan area. A limited quantity of water is drawn from Mundaring Weir to serve sections of Greenmount, and to meet the peak demands of summer consumption supplies are supplemented from artesian bores, which can provide a daily maximum of 19 million gallons. The amount of bore water used is rarely more than 10 per cent of the metropolitan consumption and is usually considerably less.

The following table shows particulars of the *metropolitan water supply services* for 1964-65 to 1968–69.

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES 1964–65 TO 1968–69

Year	*Number of services (a)*	*Average daily consumption*	*Total consumption for year*	*Average daily consumption per service (b)*	*Length of mains*	*Number of meters*
		mill gal	mill gal	gallons	miles	
1964–65 . .	154,051	55.7	20,339	367	2,526	135,471
1965–66 . .	158,675	59.5	21,707	380	2,654	139,435
1966–67 . .	164,782	70.8	25,843	437	2,798	146,028
1967–68 . .	173,068	68.2	24,958	403	2,923	152,603
1968–69 . .	185,340	76.7	28,015	429	3,144	161,859

(*a*) Figures relate to 30 June. (*b*) Calculated from averages for the year.

Some particulars of the *metropolitan sewerage and main drainage services* for 1964–65 to 1968–69 are shown in the following table.

METROPOLITAN SEWERAGE AND MAIN DRAINAGE WESTERN AUSTRALIA: SERVICES 1964–65 TO 1968–69

Year	*Services*	*Length of sewers*	*Length of main drains*
		miles	miles
1964–65	69,553	777	100
1965–66	70,283	816	102
1966–67	71,188	848	109
1967–68	72,177	886	118
1968–69	74,018	931	126

Metropolitan Water Supply, Sewerage and Drainage Board—finances. The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Board.

METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE WESTERN AUSTRALIA: FINANCES, 1964–65 TO 1968–69 ($'000)

Service and year	*Capital cost to 30 June*	*Revenue*	*Expenditure*			*Surplus (+) or deficit (−) Total*
			Working expenses	*Interest and debt redemption*	*Total*	
Water supply—						
1964–65 . . .	54,334	4,370	1,653	2,641	4,294	+ 76
1965–66 . . .	58,336	4,861	1,815	3,018	4,833	+ 28
1966–67 . . .	62,137	5,551	2,307	3,061	5,368	+ 183
1967–68 . . .	66,217	5,782	2,292	3,243	5,535	+ 247
1968–69 . . .	74,078	7,162	2,322	3,510	5,832	+ 1,331
Sewerage—						
1964–65 . . .	22,050	2,426	1,272	1,053	2,325	+ 101
1965–66 . . .	24,243	2,823	1,336	1,176	2,512	+ 310
1966–67 . . .	26,737	3,000	1,622	1,340	2,961	+ 38
1967–68 . . .	29,286	3,198	1,689	1,474	3,164	+ 34
1968–69 . . .	34,027	3,809	1,771	1,637	3,408	+ 401
Main drainage—						
1964–65 . . .	5,641	342	191	238	429	− 87
1965–66 . . .	6,344	418	245	275	520	− 102
1966–67 . . .	6,956	629	298	319	617	+ 12
1967–68 . . .	7,433	721	314	349	663	+ 58
1968–69 . . .	8,657	872	327	375	702	+ 170

Country water supplies. Information relating to country water supplies is included in Chapter 24, Water Conservation and Irrigation.

Tasmania

Waterworks. At the end of 1968–69 the capacity of reservoirs in Tasmania was approximately 3,936 million gallons, supplying approximately 115,000 properties which consumed almost 16,000 million gallons of water during the year. The North Esk Regional Water Supply Scheme is operated by the Rivers and Water Supply Commission as a State concern, supplying bulk water to the municipalities of St Leonards, George Town, Lilydale, and portion of Westbury. This scheme also supplies water to industries situated near the Tamar River. Also vested in the Commission is the West Tamar Water Supply Scheme which serves the Municipality of Beaconsfield, and is operated by the Beaconsfield Council as the agent of the Commission. The over-all control of water supply in the greater Hobart area, comprising the municipalities of Hobart, Clarence, Glenorchy, and Kingborough, is vested in the Metropolitan Water Board, but the municipalities retain primary responsibility for reticulation, The Board has constructed a large pumping station at Bryn Estyn, near New Norfolk, which supplies bulk water from the Derwent River to the metropolitan area and has a pipeline capacity of 20 million gallons a day. In addition, the Board also controls the Southern Regional Water Supply Scheme, which supplies water to Hobart's eastern shore and the towns of Cambridge, Midway Point, Sorell, Seven Mile Beach, Rokeby, Lauderdale, Margate, Snug, and Howden. During 1968–69, 2 half-million gallon reservoirs to serve the towns of Margate, Snug and Howden were completed.

Sewerage. At the end of 1968–69 the number of tenements connected to sewerage services was about 72,000; only about 50 per cent of sewerage discharge goes through treatment plants.

Northern Territory

Information relating to water supply in the Northern Territory may be found in the chapter, Water Conservation and Irrigation.

Australian Capital Territory

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Commonwealth Department of Works. The sources of the water supply are: Cotter Dam (capacity 967 million gallons), Bendora Dam (2,360 million gallons) and Corin Dam (capacity 16,600 million gallons). Water is fed from Bendora Dam by gravity to 17 major reservoirs. The maximum daily supply is 45 million gallons. An alternative supply is available from 9 pumps at the Cotter Dam at a rate of 38.5 million gallons per day.

The total population served in the Australian Capital Territory, which during 1968–69 consumed 6,089.4 million gallons of water, was 119,000 (at 30 June 1969). In addition, the Canberra water supply system supplied 382.6 million gallons of water to Queanbeyan, New South Wales. The total number of water meters at 30 June 1969 was 31,283 and the total length of water lines was 633 miles.

The sewerage system for Canberra suburbs has three treatment works: the Weston Creek works provides for 101,500 persons, the Fyshwick works provides for 10,000 persons and the Belconnen works provides for 8,500 persons. There were 533.8 miles of sewerage, and 9 miles of sewer rising mains (at 30 June 1969). There were also 572.6 miles of storm-water drains.

Harbour boards and trusts

The number and net tonnage of vessels which entered the major ports in each State during the years 1967–68 and 1968–69 are shown in Chapter 12, Transport, Communication and Travel (*see* page 344). Particulars of overseas and interstate cargo discharged and shipped are shown on page 355 of the same chapter.

New South Wales

The Maritime Services Board of New South Wales exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft and the examination and issue of certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities, imposes and collects rates and charges on goods and vessels, and is vested with the general control and management of the navigable waters and ports within the State. At the ports of Sydney, Newcastle and Botany Bay the Board is also responsible for the provision of adequate wharfage and channels and carries out all construction, maintenance and dredging work.

Port of Sydney. The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as 'The Heads', and the Harbour proper, a distance of four miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 45 feet deep (low water ordinary spring tide) and the Eastern Channel 38 feet deep. The foreshores are 152 miles in length, and the total area of the port is 13,600 acres, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated close to the business centre of the city, about four or five miles from the Heads. At 30 June 1969 there were 5 dolphin berths, 3,350 feet long, and 80 effective commercial cargo berths, with a total length of 40,655 feet, controlled by the Board. Accommodation for harbour craft amounts to 2,245 feet, while the length of other berths, including oil and private wharves, totals 27,727 feet. Depth of water at wharves is up to 38 feet. Special facilities for the storage and handling of products such as wheat, wool, coal, etc. are provided. Docking facilities are available for large vessels at the Captain Cook Graving Dock. Containers facilities became available in March 1969 with the opening of the eastern section of the Balmain container terminals to cellular container vessels.

Port of Newcastle. Shipping at Newcastle is concerned primarily with the coal, iron and steel and other heavy industries located in the district. However, facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber. The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,200 feet, and the navigable channel, with a depth of 36 feet at low water, is 500 feet wide. Wharfage accommodation amounts to approximately 15,000 feet, including about 3,000 feet of privately owned wharfage. A floating dock of 15,000 tons capacity is available at the port and a coal loading plant capable of loading at the rate of 2,000 tons an hour is now operating. The bulk berth which recently became operative at Kooragang is equipped with two grab unloaders each with a nominal capacity of 650 tons an hour.

Botany Bay. The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell, near Sydney, and four berths are available as well as three tanker mooring buoys. The entrance to the Bay is approximately one and a quarter miles wide, with a minimum depth of 50 feet and about 42 feet in the dredged swinging basin.

Port Kembla is the port of the southern coalfields and for the major industrial areas in and about Wollongong. The port has an area of approximately 340 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation totalling 9,000 feet is provided for large ocean-going vessels. No cargo sheds are available, as the nature of the trade at the port does not call for the provision of sheltered storage accommodation. The first stage of a developmental programme to provide wharfage in an inner harbour for the steelworks and for general cargo shipment has been completed; 2,550 feet of wharfage is available and facilities include a 2,000 tons per hour coal loader.

Other ports. In addition to the port of Sydney, Newcastle, Port Kembla, and Botany Bay, the Board controls 29 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

Port charges. The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1 February 1936 the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to $30,168,000 in 1968–69. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay.

Financial details relating to these three ports are shown in the following table.

MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY NEWCASTLE AND BOTANY BAY, 1964–65 TO 1968–69

($'000)

Year	Revenue				Expenditure(a)			
	Wharfage and tranship-ment rates	Tonnage rates and berthing charges	Other charges	Total	Adminis-tration and mainten-ance	Interest, debt redemp-tion, exchange, etc.	Total	Surplus
1964–65 .	11,594	1,858	3,565	17,017	9,109	7,835	16,945	72
1965–66 .	10,711	1,832	3,980	16,523	9,512	6,916	16,428	95
1966–67 .	11,501	1,895	4,282	17,678	9,476	8,113	17,589	89
1967–68 .	12,664	2,024	5,645	20,333	10,830	9,451	20,280	53
1968–69 .	13,580	2,085	7,294	22,959	12,150	10,716	22,866	93

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account ($5,080,000 in 1964–65, $3,060,000 in 1965–66, $3,975,000 in 1966–67, $4,940,000 in 1967–68 and $5,800,000 in 1968–69).

Victoria

The *Port of Melbourne* comes under the control of the Melbourne Harbour Trust Commissioners, an independent autonomous statutory organisation, with a full-time chairman and five part-time commissioners. The area of water and land under the control of the Trust is ten and a half square miles, with sheds available for cargo in transit totalling 22,928 feet in length and covering an area of about 43 acres. Three of the largest transit sheds on the Australian coast are in operation at Appleton Dock. The sheds are 600 feet long by 150 feet wide, each with a cargo stacking area of 81,000 square feet. The berths are used for conventional general cargo trade as well as the unit-load container handling for general cargo in the overseas trade. The total length of wharves, piers and jetties in the port is 61,550 feet, covering an area of about 59 acres with 56,940 feet of effective berthing space.

In line with world-wide changes in cargo handling methods, current planning and construction in the Port of Melbourne are almost exclusively devoted to facilities catering for container ships and cargo as well as for the multi-purpose unit-load container conventional ships and cargo. The port's first overseas container terminal, Swanson Dock, which has 1,050 feet of concrete wharf apron with 22.5 acres stacking area behind the berth, was officially opened on 7 March 1968. Of the two additional 800 feet long 'common user' container berths on the east side of Swanson Dock one was expected to be completed in November 1970 and the other in November 1971. Two roll-on roll-off container unit-load berths were completed in early 1969, one at North Wharf for the trans-Tasman trade to New Zealand, having a 830 feet wharf apron and 3.3 acre stacking area behind the berth and the other at the River Entrance Docks, with a 600 feet wharf apron and additional 11.3 acre stacking area for the eastern seaboard trade.

The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 39 feet.

The following table shows particulars of the financial operations of the Trust.

MELBOURNE HARBOUR TRUST: FINANCES, 1965 TO 1969

($'000)

Year	Gross loan indebted-ness at 31 December	Revenue		Expenditure				Surplus (+) or deficit (−)
		Wharfage and tonnage rates	Total	Opera-tion, adminis-tration and mainten-ance	Interest, debt redemp-tion, exchange, etc.	General reserve, deprecia-tion, renewals and insurance account	Total	
1965 . .	30,473	7,058	11,434	6,451	2,393	2,382	11,226	+208
1966 . .	32,229	6,393	10,695	6,235	1,712	2,583	10,530	+165
1967 . .	34,484	6,692	11,322	6,441	2,142	2,567	11,150	+172
1968 . .	36,029	8,357	13,573	6,972	2,381	4,002	13,355	+218
1969 . .	37,888	8,901	14,321	7,903	2,127	4,049	14,079	+242

The *Port of Geelong* operated by the Geelong Harbour Trust, has available 18 effective berths, plus 2 berths at the Commonwealth Explosives Pier, Point Wilson, owned and operated by the Commonwealth. A modern dry bulk berth (Lascelles Wharf No. 1 berth) adjoining Kings Wharf (now named Lascelles Wharf No. 2 berth) will be operational in 1970 as well as a roll-on roll-off berth being constructed at an adjunct of Corio Quay South No. 1 berth. The Trust operates its own towage fleet of six tugs, the largest of 1,900 b.h.p. Eight berths have a depth of 36 feet at low water; all other berths (except Commonwealth Explosives Pier, Point Wilson and Point Henry Pier, 30 feet) have a depth of 32 feet at low water. Revenue for the year 1968 was $3,365,368, and expenditure from revenue totalled $2,441,668. At 31 December 1968 the value of the Trust's fixed assets was $26,402,870 and loans outstanding amounted to $7,933,519.

The *Port of Portland* provides unimpeded access for large ocean-going vessels to the entrance of a 250-acre harbour basin having a minimum depth of 36 feet of water under all tidal conditions. Since the new all-weather deep sea port was completed to operational standards during 1960 an oil tanker berth has been commissioned, a new berth completed for the handling of dry bulk commodities and a 1.25 million bushel bulk grain terminal erected. Foundations for an extension to double the storage capacity of the terminal were completed at the end of June 1969, whilst at the same time construction of a 1,600 h.p. ocean-going tug had reached the stage where it was ready for launching.

Operating revenue and expenditure for the year ended 30 June 1969 were $585,056 and $385,911 respectively. The value of the Trust's fixed assets, less depreciation, was $18,932,022 at 30 June 1969, and loans and advances outstanding amounted to $19,283,190.

Queensland

The ports of Queensland, except Brisbane and certain minor ports, are administered by harbour boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

Brisbane. Brisbane, in its dredged and improved river, accommodates comfortably the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly because of the increasing size of vessels, are still within easy access of the city. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1963–64 to 1967–68 are shown in the following table.

BRISBANE HARBOUR: FINANCES, 1963–64 TO 1967–68
($'000)

Year	Loan indebtedness at 30 June	Receipts		Payments	
		Harbour dues	Total	Working expenses(a)	Total
1963–64 . .	5,032	1,859	2,500	3,346	3,837
1964–65 . .	4,912	2,125	2,796	2,305	2,646
1965–66 . .	4,787	2,094	3,121	2,157	2,498
1966–67 . .	4,636	2,044	2,987	2,228	2,561
1967–68 . .	4,504	2,019	3,475	3,039	3,376

(*a*) Excludes interest and redemption included in total.

In addition to Brisbane harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, and 11 smaller harbours not administered by harbour boards.

Harbour boards. Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton, and Townsville. Finances for each port for the year ended 30 June 1968 are shown on page 629, together with a summary for the years ended 30 June 1964 to 1968.

HARBOUR BOARDS, QUEENSLAND: FINANCES, 1963–64 TO 1967–68
($'000)

Harbour board	*Loan indebtedness at 30 June*	*Revenue*		*Expenditure (excluding loan)*		*Surplus (+) or deficit (−)*
		Wharfage and harbour dues	*Total*	*Working expenses*	*Total including interest and redemption (a)*	
Bowen	545	23	36	20	24	+ 12
Bundaberg	6,040	706	1,076	431	1,148	− 72
Cairns	6,525	553	1,205	455	1,152	+ 53
Gladstone	7,442	752	3,785	208	3,573	+ 212
Mackay	4,165	475	1,553	328	1,264	+ 289
Rockhampton	3,492	112	204	51	215	− 11
Townsville	8,362	858	1,443	587	1,744	− 301
Total, 1967–68	**36,571**	**3,479**	**9,302**	**2,080**	**9,120**	**+ 182**
1966–67	36,384	3,109	8,372	1,876	8,201	+ 171
1965–66	35,436	2,524	8,862	1,792	9,088	− 226
1964–65	33,824	2,412	6,337	1,398	6,169	+ 168
1963–64	28,369	2,329	5,419	1,362	5,402	+ 17

(a) Includes expenditure on capital works from accumulated revenue.

South Australia

Department of Marine and Harbors. All South Australian harbours are controlled by the Department of Marine and Harbors, which is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the five deep-sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, and Thevenard. In South Australia there are also eight privately-owned and operated ports. The principal of these are Whyalla, Ardrossan, Rapid Bay, and Proper Bay (Broken Hill Pty Co. Ltd), Port Augusta (Commonwealth Railways) and Port Stanvac (Petroleum Refineries (Aust.) Pty Ltd). Maximum depths of water (low water) at the wharves of the main ports range from 27 feet at Port Pirie to 35 feet at Port Adelaide. The following table shows the finances of the Department for 1964–65 to 1968–69.

DEPARTMENT OF MARINE AND HARBOURS, SOUTH AUSTRALIA: FINANCES 1964–65 TO 1968–69
($'000)

Year	*Loan indebtedness at 30 June*	*Revenue*	*Expenditure from revenue*			*Surplus*
			Working expenses	*Interest*	*Total*	
1964–65	41,393	6,201	3,908	1,679	5,587	614
1965–66	43,172	6,194	3,941	1,734	5,675	519
1966–67	44,264	6,734	4,019	1,807	5,827	907
1967–68	45,478	6,418	4,196	1,869	6,065	352
1968–69	47,614	6,653	4,365	1,957	6,322	331

Western Australia

The *Port of Fremantle* is operated and controlled by the Fremantle Port Authority. The port covers an extensive water area of some 180 square miles and comprises an inner and an outer harbour. The inner harbour includes 20 deep-water land-backed berths, providing more than 665,450 square feet of covered storage space and 12,787 feet of wharf berth accommodation. All inner harbour berths are dredged to a low water depth of 36 feet. The outer harbour includes 3 main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep-water jetties, including the oil refinery jetty in Cockburn Sound, are available in the outer harbour. Ocean-going deep draft ships enter the Sound by means of a channel dredged through Success and Parmelia Banks to a low water depth of 45 feet and a bottom width of 500 feet. In the outer harbour there are 3 tanker berths each with a low water depth of 44 feet at the Kwinana oil refinery, 2 berths at the nearby steelworks jetties with a low water depth of 38 feet, 1 berth at the alumina works jetty with a low water depth of 40 feet and 1 berth at the bulk cargo jetty with a low water depth of 44 feet. There is also a special berth for the handling of explosives. Total effective berth accommodation in the outer harbour is 7,530 feet. Gross earnings for 1968–69 amounted to $10,009,346, working expenses to $7,455,044, interest charges on loan capital $891,567, and loan indebtedness totalled $21,249,139.

The *Port of Albany* is controlled by the Albany Port Authority. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 33 feet. In the approaches to wharf berths the depth is 33 feet. Berthing accommodation totals 3,615 feet, comprising 1,115 feet at the wharf berths and 2,500 feet at the Deepwater Jetty. Gross earnings for the year 1968–69 amounted to $517,573, working expenses $345,192, interest and sinking fund charges $240,918, and loan indebtedness totalled $4,449,515.

The *Port of Bunbury* is controlled by the Bunbury Port Authority. The depth of water in the harbour is 30 feet and berthing accommodation is 4,808 feet. Gross earnings for the year 1968–69 amounted to $807,513, working expenses $287,865, interest on loan capital $354,790, and loan indebtedness totalled $7,244,557.

The *Esperance Port* Authority was established by the *Esperance Port Authority Act* 1968. Three berths provide a total length of 1,720 feet with a minimum depth alongside of 31 feet 6 inches. Bulk handling facilities are provided for petroleum products, grain, and minerals, including salt, nickel and copper. Gross earnings from 14 March to 30 June 1969 were $96,667, working expenses $79,738, and interest charges $44,954. Loan indebtedness was $3,044,018 at 30 June 1969.

The *Geraldton Port* Authority was established by the *Geraldton Port Authority Act* 1968. Four land-backed berths have a total length of 2,238 feet with a minimum depth alongside of 30 feet and a tide rise of 4 feet. The grain terminal provides storage for 5,000,000 bushels and permits ships to be loaded at the rate of 800 tons per hour. The iron ore berth is associated with a privately-operated ore stockpile and automatic conveyor system with a rated capacity of 1,500 tons per hour. Gross earnings from 14 March to 30 June 1969 were $235,264, working expenses $47,552 and interest charges $77,858. Loan indebtedness stood at $5,261,165 at 30 June 1969.

Other ports. The following ports are controlled by the State Government Harbour and Light Department: Broome, Busselton, Carnarvon, Derby, Onslow, Point Samson, Port Hedland, and Wyndham. Ports privately controlled comprise Yampi and Dampier, both operated by iron ore mining companies, and Exmouth, the port serving the communications installation at North West Cape. A private buoyed sea terminal is operated at Barrow Island for the shipment of crude oil, and private interests ship salt at Useless Loop in Shark Bay and from Cape Cuvier.

Tasmania

There are nine port authorities: the marine boards of Hobart, Devonport, Burnie, Circular Head (Stanley), King Island (Currie), Strahan and Flinders Island (Whitemark); also the Port of Launceston Authority and the Smithton Harbour Trust. The ports at Hobart, Launceston, Burnie and Devonport are terminals for overseas shipping. Port Latta in Circular Head's area is a specialised port for the shipment overseas of iron ore pellets, the loading point lying a mile out to sea in over 50 feet of water.

AUTHORITIES CONTROLLING PORTS, TASMANIA: FINANCES
1965–66 TO 1968–69
($'000)

Authority	*Loan indebtedness at 30 June (a)*	*Receipts (revenue account) Total*	*Expenditure (revenue account)*			*Surplus (+) or deficit (−)*	*Loan expenditure*
			Works and Services	*Loan charges*	*Total (b)*		
Hobart	2,760	1,791	963	331	1,583	+ 208	300
Launceston	4,399	1,974	849	336	2,018	− 44	891
Devonport	5,766	1,074	406	490	1,007	+ 67	1,401
Burnie	10,782	1,243	544	791	1,470	− 227	1,844
Circular Head	438	64	10	45	68	− 4	25
King Island	87	53	24	9	52	+ 1	4
Strahan	144	57	12	9	39	+ 18	109
Flinders Island	. .	18	8	1	15	+ 3	. .
Smithton	. .	1	1	. .	2	− 1	. .
Total, 1968–69	**24,376**	**6,274**	**2,817**	**2,011**	**6,253**	**+ 21**	**4,574**
1967–68	22,249	5,953	2,272	1,921	5,433	+ 520	2,395
1966–67	20,361	5,628	2,711	1,646	5,333	+ 295	2,184
1965–66	18,622	5,541	2,557	1,504	5,147	+ 394	1,846

(*a*) The total of new loans raised during 1968–69 was $2,836,500, of which Hobart raised $300,000, Launceston $1,186,500, Devonport $700,000, Burnie $500,000, Circular Head $20,000, and Strahan $130,000. (*b*) Includes other expenditure.

Fire brigades

New South Wales

A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act, 1909–1965, and 163 fire districts had been constituted at the end of 1968. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and the insurance companies three-quarters. The Board's borrowing power is limited to $2,000,000.

At 31 December 1968 the actual strength of the Fire Brigade throughout the fire districts of New South Wales was 465 officers and 1,354 permanent and 2,805 volunteer firemen. Corresponding figures for the Sydney Fire District were 382, 1,182 and 280. The revenue for the year 1968 was $11,061,000, as follows; from the Government $1,365,000; municipalities and shires, $1,365,000; fire insurance companies and firms, $8,193,000; and from other sources, $138,000. The disbursements for the year $11,201,000. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Commonwealth Government.

Under the Bush Fires Act, 1949–1965 a Bush Fire Fighting Fund exists from which finance is provided for the prevention and fighting of bush fires. Contributions to the Fund by the Government, councils and insurance companies are in the proportion of one-quarter, one-quarter and one-half, respectively. At 30 June 1969 Volunteer Brigades equipped by means of this fund numbered 2,500 with an active membership of about 65,000 persons. The approved expenditure from the Fund for equipment, up to 30 June 1970, amounted to $11,940,000.

Victoria

In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of ten members, including an employees' representative, and the Country Fire Authority consisting of eleven members.

Metropolitan Fire Brigades Board. The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. On 30 June 1969 the Board had under its control 45 stations, 1,175 permanent staff, and 254 special service and clerical, etc. staff. The total receipts for 1968–69 were $7,285,315, comprising contributions $6,221,188, receipts for services $687,827, and interest and sundries $376,300. The expenditure was $7,846,592.

Country Fire Authority. This authority is responsible for the prevention and suppression of fires in the 'country area of Victoria', which embraces the whole of the State outside the Metropolitan Fire District, excluding State forests, National Parks and certain Crown lands. The country area has been divided into twenty-five fire control regions, four of which (Ballarat, Bendigo, Geelong and the Dandenong, Chelsea and Frankston areas) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30 June 1969 the Country Fire Authority Act applied to 192 insurance companies and 209 urban and 1,050 rural fire brigades. The effective registered strength of the brigades was 118,569 members. Income for the year 1968–69 amounted to $3,213,467. Total expenditure other than loan redemption and capital expenditure amounted to $3,054,436.

Queensland

There are two controlling bodies responsible for fire fighting services throughout Queensland. The State Fire Services Council controls brigades set up under *The Fire Brigades Acts* 1964 *to* 1966, and the Rural Fires Board under provisions of *The Rural Fires Act*, 1946 *to* 1968 administers Bush Fire Brigades. In addition a Local Authority may establish a fire fighting brigade of its own as do some major establishments such as the State Forestry Department and private companies whose activities involve fire hazards.

Fire districts are constituted under '*The Fire Brigades Acts*, 1964 *to* 1966'. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows: Treasury one-eighth, insurance companies three-quarters, and local authorities one-eighth. The insurance companies' contribution is paid to the State Government and thence to fire brigades.

At 30 June 1969 there were 84 Fire Brigades Boards. The number of stations was 177 and full-time staff numbered 1,145, including 50 administrative, 289 officers and 806 firemen. Volunteers numbered 18. Part-time staff numbered 1,341 including 85 administrative, 126 officers and 1,130 firemen. The total revenue for the year 1968–69 was $5,705,554, received mainly from the following sources: Government $682,670, local authorities $682,670, insurance companies $4,096,008. Loan receipts (Government and other) were $569,945. The total expenditure for the year was $5,758,808, the chief items being salaries and wages $4,152,881, and interest and redemption of loans $579,628.

The Rural Fires Board consists of a chairman and nine members all, except the one representing the United Graziers Association, are appointed by the Governor-in-Council from Government Departments and the Minister of Lands has power to add up to three additional members from the community as a whole. For administrative purposes the State is divided into Rural Fire Districts under the control of a Chief Fire Warden and in these districts Fire Wardens are appointed to assigned areas. These officers co-ordinate and control the Bush Fire Brigades on a voluntary basis. At 30 June 1969 there were 165 Rural Fire Districts with over 1,500 voluntary Fire Wardens and Bush Fire Brigades numbered 942. Expenditure by the State Government during 1968–69 amounted to $62,242.

South Australia

The Fire Brigades Act, 1936–1958 provides for a board of five members, that the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies and two-ninths by the municipalities concerned, and that when the Treasury proportion exceeds its statutory contribution of approximately $29,000, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30 June 1969 there were altogether 37 fire brigade stations, of which 15 were metropolitan and 22 country.

The strength of the permanent staff at 30 June 1969 was 517, including 390 officers and men, 90 country auxiliary firemen and 37 other employees (including maintenance workers). The total revenue for the year 1968–69 was $1,801,685, including contributions of $1,546,614 made up as follows: insurance companies $930,835, Treasury $243,444 and municipalities $372,334. The Treasury contribution includes a special grant of $214,082.

Western Australia

By the provisions of the *Fire Brigades Act*, 1942–1966 certain local government areas are constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 59 fire districts at 30 June 1969. The contribution to the Board is made in the proportion of 16 per cent from the Government, 20 per cent from local government authorities, and 64 per cent from insurance companies. The number of local government authorities and insurance companies who contributed numbered 79 and 183 respectively. The brigades throughout the State controlled by the Western Australian Fire Brigades Board at 30 June 1969 numbered 78, with a staff of 1,820 including 380 permanent officers and firemen and 1,440 volunteer brigade officers and firemen. The revenue for the year ended 30 June 1969 was $2,507,471 and the expenditure $2,542,563.

Under the *Bush Fires Act*, 1954–1965 a Bush Fires Board, consisting of thirteen members, six of whom are nominated by the Country Shire Councils' Association, was set up to advise the Minister for Lands on bush fire control and to administer the Bush Fires Act. The Act also provides for the registration of bush fire control officers, who numbered 2,295 at 30 June 1969, and the establishment of bush fire brigades, 947 at 30 June 1969. Many individual brigades are large organisations with numerous self-contained sections.

Tasmania

The *Fire Brigades Act* 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigade boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of two persons nominated by the Minister, one person elected by the City or Municipal Councils' representatives, one person nominated by the Chairman of the Rural Fires Board and three persons elected by the insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of 22.5 per cent each from the Treasury and the municipalities and 55 per cent from the insurance companies concerned. The cost for the year 1968–69 amounted to $962,741. There were, at 30 June 1969, 22 boards controlling 37 stations, and their aggregate staffs numbered 647 (officers and firemen), including 210 permanent firemen, 397 part-time firemen and 40 volunteers; the volunteers all operate under the Hobart Board in the forested and mountainous Fern Tree area.

CHAPTER 20

EDUCATION, CULTURAL ACTIVITIES, AND RESEARCH

For the most recent statistics available on subjects dealt with in this chapter reference should be made to the series of mimeographed bulletins on *Social Statistics* issued by this Bureau. The *Quarterly Summary of Australian Statistics* contains summarised information on these subjects, and financial aspects are dealt with in the annual bulletins *Commonwealth Finance* and *State, Territory and Local Government Authorities' Finance and Government Securities.* The Annual Reports of the respective State education departments provide detailed statistical and other information about particular States. Publications on education in Australia, secondary schooling, and other topics are issued by the Commonwealth Department of Education and Science.

EDUCATION

An account of the development of the Australian school system up to 1929 may be found in Year Book No. 22. In Year Book No. 40 a review of changes which occurred up to 1951 and of the practices then current was presented. The present situation is summarised in the early part of this chapter, in textual material provided by the Commonwealth Department of Education and Science.

Education in Australian schools

Administration and organisation

In Australia the provision of schools is mainly the responsibility of State governments. During the nineteenth century all six Australian colonies had established systems of compulsory education, beginning with the *Education Act* 1872 in Victoria, and followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), Tasmania (1893), and Western Australia (1893). After Federation in 1901 education was one of the responsibilities retained by the States, and these acts, with subsequent amendments, constitute the legal basis of compulsory education in the Australian States to-day. The Commonwealth has responsibilities for the provision of education facilities in the Northern Territory and the Australian Capital Territory. The government school system in the Australian Capital Territory is staffed by the New South Wales Department of Education and follows the educational syllabus of that State, the cost being recovered from the Commonwealth Government. A similar arrangement exists with the South Australian Department of Education in the operation of schools in the Northern Territory. The Commonwealth also provides direct financial assistance in various forms to schools throughout Australia.

School attendance is compulsory throughout Australia between the ages of six and, at least, fifteen. The minimum leaving age is fifteen years in New South Wales, Victoria, Queensland, and South Australia, and sixteen years in Tasmania, while in Western Australia attendance is compulsory until the end of the year in which the child turns fifteen years. The Education Acts require that all children between the prescribed ages must attend either a government school or some other recognised educational institution. Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition.

The school year in Australia begins at the end of January or early in February; it ends in mid-December. The long vacation is taken over the summer months (December to February) and two short vacations divide the school year into three terms.

At government primary schools it is usual for both boys and girls to attend the same school; at the secondary level practices vary, but the trend is towards co-educational schools. Non-government secondary schools cater mainly for boys and girls separately.

Government school systems

Although the educational systems in the six States are not identical, they have many similar features. Responsibility for framing educational policy and having it put into effect rests with a Minister for Education, who is a member of the State Cabinet. The administrative authority in each State is an education department headed by a Director-General of Education. Separate divisions of the education department in each State administer primary, secondary and technical education (in New South Wales there is a separate Department of Technical Education). Other divisions look after such matters as the recruitment and training of teachers, pupil guidance, research, and the education of atypical children. In New South Wales and Queensland, administration has been decentralised to a degree by the appointment of directors who are responsible for policy in the area which they control.

Tuition at government primary and secondary schools is free in all States. Parents are usually expected to bear the cost of textbooks, uniforms and charges for such things as the use of sports materials. However, income tax concessions exist in respect of these expenditures for both government and non-government systems, and certain textbook costs are subsidised in the case of pupils attending government and non-government schools in some States.

Non-government school systems

Approximately 28 per cent of Australian school children are enrolled at non-government primary and secondary schools and about 80 per cent of these attend Roman Catholic schools. The majority of other non-government schools, sometimes known as 'private' or 'independent' schools, are conducted by, or are under the auspices of, various other religious denominations, particularly the Church of England, Presbyterian and Methodist Churches. A few non-government schools are undenominational and are conducted under the auspices of corporate bodies. Non-government schools follow curricula similar to those laid down by State education departments, and prepare their pupils for examinations conducted by public examining bodies.

The methods adopted by the education authorities to ensure an acceptable standard of education at non-government schools vary from State to State. In New South Wales, Victoria, South Australia and Tasmania, these schools are regularly inspected. In Victoria and Tasmania, schools and teachers must be registered. Non-government schools in Queensland and also those in Western Australia are inspected on request.

The principals of a number of the larger non-government schools have formed organisations with both State and Australia-wide coverage, namely the Headmasters Conference of the Independent Schools of Australia and the Association of Headmistresses of the Independent Schools of Australia.

Most Roman Catholic parish schools charge fees, but payment is not insisted on in the case of families who cannot afford it. At the majority of non-government secondary schools, privately endowed scholarships are available, and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school. With these exceptions, pupils of non-government schools must pay fees.

Certain State scholarships and bursaries are tenable at approved non-government secondary schools. From the establishment of school systems by the State governments, official policy has been largely against the provision of direct financial assistance to non-government schools, but since 1967, all States have introduced some system of direct assistance to non-government schools, usually in the form of pupil allowances. Most States also assist non-government schools in approved building projects. For details of Commonwealth finance for the building and equipping of science laboratories and school libraries, *see* pages 664-5 and 669.

Schools and courses

A diagram of State and Territory school systems, showing current grades, examinations, and age levels is shown on page 641.

Primary education. Though school attendance is not compulsory until the age of six, many children begin school before that age, attending infants schools or infants classes attached to a primary school. In some States the first year in the infants department is known as 'kindergarten'. The emphasis in infants classes is on the development of skills in language and numbers.

Primary schools are normally provided when and where there is sufficient population to justify them. Irrespective of the size or the location of the school, standards of tuition are similar because teachers within a State follow similar courses of training and transfer between metropolitan and country areas. The education departments prescribe syllabuses of instruction, which are drawn up with the assistance of expert committees.

Progression from primary to secondary school is usually automatic. Allocation to particular schools or particular courses is based on the district in which the child lives, the recommendations of the headmaster, general ability tests, tests of achievement in the basic subjects, and parents' wishes.

Secondary education. The age of transfer from a government primary to secondary school is usually between twelve and thirteen. The secondary pupil takes up new studies, such as foreign languages, technical or commercial subjects, and moves on to more specialised studies in natural and social sciences and mathematics. The actual subjects studied depend on the ability of the pupil and, in some States, the type of school.

The most common type of secondary school is the comprehensive or multi-purpose high school, which offers a wide range of subjects. To cater for this diversity of subjects, most high schools now have modern facilities for the teaching of domestic science, commercial subjects, woodwork, and other technical subjects. In some States there are still, however, separate high schools specialising in technical, agricultural, commercial, or home science subjects. Some of the agricultural high schools are residential. The curriculum consists of general educational subjects and practical farm training. There are also 'area' and 'rural' schools offering up to three years of secondary study.

Examinations

For information on examination procedures up to 1969, *see* Year Book No. 55, pages 485 and 486. Changes occurring or foreshadowed in 1969 are set out below.

Victoria. From 1970, the Victorian matriculation examination will be called the Victorian Higher School Certificate Examination.

Western Australia. From 1970, all first year high school pupils in government schools and many in non-government schools will study under the Achievement Certificate System which replaces the Junior Certificate examination. Pupils will be required to take four 'core' subjects (English, mathematics, social studies, and science) and to study one or more of a wide range of subjects, including languages, art, trade subjects, music, and drama. An Achievement Certificate will be awarded when the pupil leaves school, assessment being based on a cumulative record of achievements maintained at the school.

Tasmania. The Schools Board Certificate examination at the end of fourth year was discontinued in 1969, and replaced by an internal School Certificate examination. The matriculation examination has been renamed the Higher School Certificate.

Special facilities for pupils

Details of medical and dental inspection of school children, and the provision of free milk are given in Chapter 14, Public Health. In Year Book No. 55, a general description is given of provisions for isolated areas, Schools of the air and correspondence schools, (pages 494 and 495), handicapped children and physical education (page 495), and educational guidance and school broadcasting and television (page 496). The following particulars supplement that information.

Aboriginal education. Aboriginal children in towns and cities attend the same schools as other Australian children, but special schools for Aborigines have been developed on isolated settlements and mission stations, financed partly or wholly from government sources.

School television. Television programmes from pre-school to secondary school level are produced by the Australian Broadcasting Commission. The annual production is approximately 300 titles and about 250 titles are purchased each year from overseas organisations and independent film companies. During 1969, there were between 25 and 30 hours of educational television each week in each State. The number of schools equipped to receive programmes was 4,600.

Handicapped children. A plan to have the Commonwealth Department of Social Services survey the special needs of handicapped children, with the assistance of the Commonwealth Departments of Health and of Education and Science, was announced in 1969. Payments under the *States Grants (Independent Schools) Act* 1969, which provides assistance to approved schools for the handicapped will commence in the 1970 school year.

Scholarships and bursaries

All States have schemes of financial assistance to school pupils, mostly at the secondary level, through scholarships or bursaries. As tuition in government schools is free, this assistance is usually in the form of maintenance allowances, both for children living with their parents and for those living away from home. These may be paid in a lump sum or in instalments throughout the year. Awards are usually made on the results of a competitive examination, and sometimes a means test is applied. Other government and private authorities, such as the Repatriation Department and the Legacy War Orphans Fund, assist certain categories of pupils with their school education. Many non-government schools also award scholarships, on a competitive basis, which enable pupils to attend the particular schools at reduced fees or without payment of fees.

In 1964 the Commonwealth Government, with the co-operation of the State education departments, introduced a programme of secondary scholarships to encourage successful candidates to complete the final two years of secondary schooling. Further details of the Commonwealth secondary scholarships scheme and the Commonwealth technical scholarship scheme are given on page 665.

Various forms of financial assistance, both government and non-government are available to help Aborigines to undertake further studies. In 1969, 100 secondary scholarships were awarded by Abschol, a scholarship scheme organised by the National Union of Australian University Students, for Aborigines. *See* page 666 for details of the Aboriginal Study Grants Scheme, begun in 1968 by the Commonwealth.

Subsidised transport to and from school

All the States have systems of subsidies by which transport is free or at a concession rate for children who have to travel to and from school daily. In some States an allowance is paid if private transport has to be used.

Subsidies to children living away from home

For children whose homes are too far away from a secondary school to allow daily travel, some States run hostels or give financial assistance to privately owned hostels. The States also pay boarding allowances to the holders of State bursaries or scholarships and, in some cases, agricultural scholarships include free board at an agricultural high school.

School buildings

The increase in the school population in the last decade led to an expansion in school building. To cope with this growth in population, it has been necessary to make use of temporary and emergency structures. Quite large schools are being built in stages to match increases in local population in new and rapidly developing suburbs in metropolitan areas. For details of assistance provided by the Commonwealth for the building and equipping of science laboratories, *see* page 669.

Textbooks, materials and other equipment

The State education departments supply government schools, free of charge, with essential equipment, including scientific apparatus, maps, blackboards, chalk, and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are also supplied in most States. Readers and writing equipment for individual pupils are sometimes supplied free in primary schools, and several education departments produce monthly school magazines which are supplied free or at a nominal price. In primary schools (except in one State where textbooks are made available free to children in both government and non-government primary schools) and in secondary schools, textbooks must, however, be purchased by pupils. In several States, schools own stocks of textbooks which are hired to pupils, and in one State, secondary textbooks are sold at reduced prices. In four States certain textbook costs are subsidised for pupils attending government and non-government schools. The parent and citizen organisations, with the assistance of subsidies from the education departments, are usually responsible for providing equipment such as radios and television sets, film strip projectors, pianos, duplicators and, in particular, library books.

Visual aids

Each of the State education departments has a visual education branch to handle the production and distribution of such materials. Film strips and posters are distributed free or at low costs. Films are held in central libraries and are requisitioned by schools as required for teaching purposes. Commonwealth financial assistance under the Secondary Schools Libraries Programme is available to State education departments for a range of audio-visual equipment.

Parent and citizen organisations

In Australia, where all government schools are administered by central departments, there is limited opportunity for local participation in education. Public interest is expressed through parents committees or organisations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote an interest in the school by bringing parents and teaching staff together, to help provide supplementary teaching aids and recreation materials, to foster the regular attendance of children at school, and to help find accommodation for teachers. In several States the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools are maintained by groups in some States. Parent groups have established school children's insurance schemes, operated through State Government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils of federations of parent groups are associated in a federal body, the Australian Council of School Organisations.

Research

All State education departments have branches undertaking research directed towards departmental activities. The work of the research branches is concerned with such matters as curriculum content, new teaching methods, evaluation procedures, wastage rates, and educational statistics. Education research is also carried out by the faculties and departments of education in the universities, the Commonwealth Department of Education and Science and the Australian Council for Educational Research. Information on current research projects is summarised below:

New South Wales. The New South Wales Education Department, with officers from the Department of Public Health and Commonwealth Acoustic Laboratories is represented on a committee set up in 1969 to investigate the education of pre-school deaf children. A second survey was made by the Department, in collaboration with the Commonwealth Departments of Education and Science and Immigration into migrant education in New South Wales. Under the chairmanship of Sir Walter Scott, a survey was conducted of class sizes and teaching loads in secondary schools, and the results were published in 1969. The Rydge Committee, convened to investigate the possibility of setting up an education commission in New South Wales, released its findings in 1969.

The Adult Education Department of the University of Sydney has been developing Aboriginal Family Education Centres, and for the five-year period 1969–74, it has $350,000 available for the project. A five-year research project, begun in 1969, into the pre-school aspects of these centres is being financed by the Bernard Van Leer Foundation.

Queensland. A committee of eight Queensland educationists, chaired by the Director of the Australian Council for Educational Research, has been appointed by the Queensland Government to consider the secondary level examination system.

The Bernard Van Leer Foundation has made a grant of $90,000 to assist the Queensland Government with a project which, among other things, involves an investigation of the language skills of Aboriginal children and the development of special language programmes to overcome language difficulties.

South Australia. A committee of inquiry, under the chairmanship of Professor P. Karmel, has been set up by the government. Its aim is to investigate the whole range of education in South Australia, including the use of available resources, teacher training, and a review of teaching and curricula methods.

Tasmania. A committee, chaired by the Director of Personnel in the Education Department, with representatives of the Tasmanian Council of Churches, the Roman Catholic Church, the Tasmanian Council of State School Parents and Friends Associations, and the Tasmanian Teachers' Federation was appointed in 1969 to examine religious instruction in State schools. A teaching kit has been developed by the Education Department Research Branch which enables children to learn about their community. The education department of the Australian Broadcasting Commission has produced a series of television programmes to augment the kit. Rural education in Tasmania is being investigated by an Education Department committee under the chairmanship of the State Director of Primary Education.

Australian Science Education Project. This project, which developed out of the Junior Secondary Science Project initiated by the Victorian, South Australian, and Tasmanian Governments, has been extended to all States. It is the first national curriculum project to be established under government sponsorship. The Commonwealth will contribute $750,000 and the States $450,000 over the five-year period commencing in 1969.

Asian studies. An advisory committee was set up by the Commonwealth in 1969 to survey and make recommendations on the study of Asian topics in Australia. The committee is named the Advisory Committee on the Teaching of Asian Languages and Cultures. Professor J. J. Auchmuty is its chairman.

Tertiary Education Entrance Project. A set of aptitude tests for improving methods of selection of students for tertiary studies is being developed by the Australian Council for Educational Research, supported by the Commonwealth through the Department of Education and Science.

Numbers of schools, teachers and pupils

The statistics which follow relate generally to schools providing education according to the primary or secondary school curricula of the various State education departments, or both, whether provided in government or non-government schools. Junior technical schools, correspondence schools, and schools in institutional homes, hospitals and similar establishments are included. Institutions providing only pre-school education, senior technical and agricultural colleges, evening schools, continuation classes, and institutions such as business colleges and coaching establishments are, as a rule, excluded.

School censuses are conducted annually at or about the beginning of August throughout all States and Territories of Australia. The numbers of pupils in the tables which follow refer to enrolments at the school census date. The numbers of schools and teachers refer to the position at dates which vary from State to State and in some instances from year to year. While it has not beeen possible to present all figures on a uniform basis between States, continuity of the figures for any one State over the period of years shown has been maintained as far as possible.

Schools, teachers and pupils

The numbers of government and non-government schools, teachers and pupils in 1969 and earlier years are shown in the following tables. For more detailed statistics, *see Schools* bulletin (reference No. 13.5).

NUMBERS OF SCHOOLS, TEACHERS AND PUPILS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1969

		Non-government schools							
		Denominational							
	Government schools	*Church of England*	*Methodist (a)*	*Presbyterian (a)*	*Roman Catholic*	*Other*	*Undenominational*	*Total*	*All schools*
				SCHOOLS					
New South Wales .	2,483	34	5	12	639	24	80	794	3,277
Victoria . .	2,235	35	4	11	479	27	16	572	2,807
Queensland . .	1,248	15	. .	5	294	18	10	342	1,590
South Australia .	656	10	4	2	127	21	7	171	827
Western Australia .	573	9	3	2	168	10	4	196	769
Tasmania . .	295	4	1	2	50	7	3	67	362
Northern Territory .	75	. .	1	. .	10	2	1	14	89
Australian Capital Territory . .	41	3	. .	. .	17	. .	. .	20	61
Australia—1969 .	**7,606**	**110**	**18**	**34**	**1,784**	**109**	**121**	**2,176**	**9,782**
1968 .	7,694	113	20	38	1,807	112	96	2,186	9,880
1967 .	7,757	113	20	38	1,818	106	92	2,187	9,944
1966 .	7,826	114	20	39	1,820	101	100	2,194	10,020
1965 .	7,844	117	22	39	1,838	101	104	2,221	10,065
				TEACHERS(*b*)					
New South Wales .	p33,139	920	200	371	6,078	125	560	8,254	p41,393
Victoria . .	26,448	1,066	238	520	4,423	433	251	6,931	33,379
Queensland . .	11,519	297	. .	55	2,350	189	205	3,096	14,615
South Australia .	9,488	247	120	84	860	112	101	1,524	11,012
Western Australia .	6,472	254	118	86	1,032	48	12	1,550	8,022
Tasmania . .	3,552	117	23	50	356	81	6	633	4,185
Northern Territory .	549	. .	12	. .	55	10	1	(*c*)78	627
Australian Capital Territory . .	974	105	. .	. .	258	. .	. .	363	1,337
Australia—1969 .	**p92,141**	**3,006**	**711**	**1,166**	**15,412**	**998**	**1,136**	**22,429**	**p114,570**
1968 .	87,600	2,942	693	1,171	15,002	974	1,063	21,845	109,445
1967 .	82,546	2,817	682	1,140	14,118	894	1,049	20,700	103,246
1966 .	78,252	2,727	659	1,111	13,395	862	1,055	19,809	98,061
1965 .	75,001	2,672	630	1,051	13,042	825	1,067	19,287	94.288
				PUPILS (SCHOOL CENSUS)					
New South Wales .	744,766	13,725	3.119	5,728	189,532	2,106	6 577	220,787	965,553
Victoria . .	572,125	16,618	4,258	8,379	149,796	6,652	3,749	189,452	761,577
Queensland . .	291,939	5,571	. .	984	74,324	3,830	4,339	89,048	380,987
South Australia .	226.091	4,114	2,204	1,515	25,318	2,230	1,288	36,669	262,760
Western Australia .	168,195	4,044	1,822	1,385	32,651	890	261	41,053	209,248
Tasmania . .	78,339	1,828	322	632	10,414	1,251	293	14,740	93,079
Northern Territory .	12,293	. .	361	. .	1,967	340	23	2,691	14,984
Australian Capital Territory . .	22,862	1,476	. .	. .	7,205	. .	. .	8,681	31,543
Australia—1969 .	**2,116,610**	**47,376**	**12,086**	**18,623**	**491,207**	**17,299**	**16,530**	**603,121**	**2,719,731**
1968 .	2,057,507	46,741	12,055	18,634	490,818	16,893	15,951	601,092	2,658,599
1967 .	1,993,572	45,944	11,764	18,487	486,738	16,011	15,823	594,767	2,588,339
1966 .	1,921,263	44,210	11,405	17,954	478,422	15,432	15,644	583,067	2,504,330
1965 .	1,857,120	44,148	11,157	17,823	476,373	15,142	15,889	580,532	2,437,652

(*a*) Excludes schools conducted in Queensland by the Presbyterian and Methodist Schools Association. These are included in 'Other denominational'. (*b*) Excludes teachers-in-training generally. Figures are full-time teachers plus part-time teachers expressed in equivalent full-time units. For basis of calculating *equivalent full-time units*, *see* footnote (*b*) to next table. (*c*) Excludes unqualified teachers and teaching assistants at mission schools.

NUMBERS OF TEACHERS: STATES AND TERRITORIES, 1969(*a*)

	Government schools			*Non-government schools*			*All schools*		
		Part-time			*Part-time*			*Part-time*	
	Full-time	*No.*	*Equiv. f.t.u. (b)*	*Full-time*	*No.*	*Equiv. f.t.u. (b)*	*Full-time*	*No.*	*Equiv. f.t.u. (b)*
New South Wales	p32,333	p1,677	p806	7,687	(*c*)1,908	567	p40,020	p3,585	p1,373
Victoria	24,894	(*d*)3,063	(*d*)1,554	6,530	1,477	401	31,424	4,540	1,954
Queensland	11,519	1	. .	2,948	588	148	14,467	589	148
South Australia	9,260	552	228	1,369	429	155	10,629	981	383
Western Australia	6,376	232	96	1,456	326	94	7,832	558	190
Tasmania	3,464	282	88	572	188	61	4,036	470	149
Northern Territory	546	6	3	(*e*)77	(*e*)2	(*e*)1	623	8	4
Australian Capital Territory	945	58	29	323	(*c*)84	40	1,268	142	69
Australia—1969	**p89,337**	**p5,871**	**p2,804**	**20,962**	**5,002**	**1,467**	**p110,299**	**p10,873**	**p4,271**
1968	84,988	5,583	2,639	20,474	5,056	1,371	105,462	10,639	4,010
1967	80,256	5,215	2,290	19,475	4,829	1,225	99,731	10,044	3,515
1966	76,028	4,932	2,224	18,663	4,423	1,146	94,691	9,355	3,370
1965	73,134	4,209	1,867	18,264	4,111	1,023	91,398	8,320	2,890

(*a*) Excludes teachers-in-training generally. (*b*) The methods used for calculating *equivalent full-time units* of part-time teaching vary from State to State, between government and non-government schools, and between primary and secondary schools within States. For most schools the information is based on either the total hours worked or total number of class periods taken in a week by part-time teachers, in relation to the normal hours worked or periods taken by full-time teachers. (*c*) Visiting teachers who attend more than one school are counted as part-time in each. (*d*) If a full-time teacher teaches both senior and junior technical school pupils, he is counted as part-time in these statistics (which include junior technical, but not senior technical schools), if his teaching load in the junior school is less than 75 per cent. (*e*) Excludes unqualified teachers and teaching assistants at mission schools.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY SEX, STATES AND TERRITORIES, 1969

(School census enrolment)

	Government schools			*Non-government schools*			*All schools*		
	Boys	*Girls*	*Total*	*Boys*	*Girls*	*Total*	*Boys*	*Girls*	*Total*
New South Wales	388,828	355,938	744,766	111,094	109,693	220,787	499,922	465,631	965,553
Victoria	301,622	270,503	572,125	92,427	97,025	189,452	394,049	367,528	761,577
Queensland	152,478	139,461	291,939	44,892	44,156	89,048	197,370	183,617	380,987
South Australia	118,120	107,971	226,091	18,085	18,584	36,669	136,205	126,555	262,760
Western Australia	88,487	79,708	168,195	19,634	21,419	41,053	108,121	101,127	209,248
Tasmania	40,725	37,614	78,339	7,124	7,616	14,740	47,849	45,230	93,079
Northern Territory	6,316	5,977	12,293	1,336	1,355	2,691	7,652	7,332	14,984
Australian Capital Territory	11,905	10,957	22,862	4,578	4,103	8,681	16,483	15,060	31,543
Australia—1969	**1,108,481**	**1,008,129**	**2,116,610**	**299,170**	**303,951**	**603,121**	**1,407,651**	**1,312,080**	**2,719,731**
1968	1,078,401	979,106	2,057,507	297,522	303,570	601,092	1,375,923	1,282,676	2,658,599
1967	1,045,807	947,765	1,993,572	294,086	300,681	594,767	1,339,893	1,248,446	2,588,339
1966	1,007,993	913,270	1,921,263	287,697	295,370	583,067	1,295,690	1,208,640	2,504,330
1965	973,706	883,414	1,857,120	286,176	294,356	580,532	1,259,882	1,177,770	2,437,652

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY AGE AND SEX AUSTRALIA, 1969

(School census enrolment)

Age last birthday (years)	*Government schools*			*Non-government schools*			*Total*		
	Boys	*Girls*	*Total*	*Boys*	*Girls*	*Total*	*Boys*	*Girls*	*Total*
Under 6	83,499	78,158	161,657	20,652	20,300	40,952	104,151	98,458	202,609
6	101,204	94,915	196,119	24,886	25,232	50,118	126,090	120,147	246,237
7	102,546	96,294	198,840	25,839	26,141	51,980	128,385	122,435	250,820
8	102,540	95,771	198,311	25,933	26,403	52,336	128,473	122,174	250,647
9	99,899	93,077	192,976	25,636	26,203	51,839	125,535	119,280	244,815
10	98,216	92,325	190,541	25,522	25,866	51,388	123,738	118,191	241,929
11	96,403	90,345	186,748	25,578	26,263	51,841	121,981	116,608	238,589
12	93,206	86,148	179,354	25,442	27,056	52,498	118,648	113,204	231,852
13	93,028	84,105	177,133	24,707	26,492	51,199	117,735	110,597	228,332
14	89,354	81,735	171,089	23,572	26,052	49,624	112,926	107,787	220,713
15	70,510	60,519	131,029	20,692	22,504	43,196	91,202	83,023	174,225
16	45,491	34,762	80,253	16,065	15,589	31,654	61,556	50,351	111,907
17	23,561	15,862	39,423	10,646	8,096	18,742	34,207	23,958	58,165
18 and over	9,024	4,113	13,137	4,000	1,754	5,754	13,024	5,867	18,891
Total	**1,108,481**	**1,008,129**	**2,116,610**	**299,170**	**303,951**	**603,121**	**1,407,651**	**1,312,080**	**2,719,731**

SCHOOLS: PUPILS, BY AGE, STATES AND TERRITORIES, 1969

(School census enrolment)

Age last birthday (years)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Under 6	80,636	61,422	20,231	19,316	8,124	7,790	2,105	2,985	202,609
6	86,297	67,363	36,164	23,212	20,589	8,147	1,593	2,872	246,237
7	88,833	68,378	37,100	23,004	20,280	8,693	1,586	2,946	250,820
8	87,651	68,307	36,891	23,955	20,564	8,829	1,569	2,881	250,647
9	85,376	66,102	36,584	23,762	20,259	8,568	1,404	2,760	244,815
10	84,283	66,260	35,577	23,414	20,027	8,339	1,280	2,749	241,929
11	83,818	65,134	35,136	22,793	19,696	8,169	1,242	2,601	238,589
12	81,107	62,750	34,503	22,582	19,371	7,920	1,158	2,461	231,852
13	78,618	62,922	33,754	22,161	19,416	8,118	1,039	2,304	228,332
14	76,647	60,975	32,516	21,549	18,401	7,593	896	2,136	220,713
15	61,551	50,387	22,787	18,068	12,630	6,181	650	1,971	174,225
16	39,805	36,445	12,102	12,257	6,375	3,118	338	1,467	111,907
17	22,660	18,898	6,011	5,070	3,140	1,279	88	1,019	58,165
18 and over	8,271	6,234	1,631	1,617	376	335	36	391	18,891
Total	**965,553**	**761,577**	**380,987**	**262,760**	**209,248**	**93,079**	**14,984**	**31,543**	**2,719,731**

Grades of pupils

The classification of pupils as primary and secondary and the allocation of primary and secondary pupils to grades differs from State to State because of differences in the curricula and the organisation of schools and grades. The numbers of pupils in grades in each State were shown in previous issues of the Year Book. Current figures of pupils in grades are shown in the *Schools* bulletin (reference No. 13.5) and the annual reports of the State Ministers of Education. *See also* Plate 36 page 641.

Pre-school education

Pre-school centres were first established in the Australian mainland states by voluntary organisations and a large number are still supported and supervised by them. The organisations include kindergarten unions, day nursery and creche associations, pre-school associations and denominational kindergartens. All now receive financial assistance from State governments but the amounts granted vary considerably from State to State. Other pre-schools are subsidised directly by States. In Tasmania pre-school teachers are employed by the State Education Department and in the internal Territories by the Commonwealth Department of Education and Science; buildings are also provided in the Territories. In all cases parents assist in the provision of equipment.

Pre-school centres are situated in city and country areas and programmes are adapted to meet the needs of the children attending. A typical pre-school centre provides half-day sessions for two groups of children. Active parent participation in the running of the centres is encouraged. A limited number of creches and day nurseries provide full-day care in closely settled areas, and there is an increasing demand for care for children of working mothers, met in part by privately run centres of varying standards. In a few cities occasional care is available and there are a few residential centres. Some results of a Survey of Child Care are given in Chapter 21, Employment and Unemployment.

The Australian Pre-School Association is a national body comprising all the voluntary organisations who have as their main concern the welfare and education of pre-schoolage children. It co-ordinates and strengthens pre-school work, sets standards, and is responsible for the administration and supervision of the six Lady Gowrie Centres established by the Commonwealth for child-study, research, and demonstration.

Radio and television bring some experience of pre-school education within the reach of practically every pre-school child in Australia. The Australian Broadcasting Commission pioneered the programme 'Kindergarten of the Air', a twenty-five minute session, broadcast throughout the country from Monday to Friday. This session is designed to reach children in isolated areas. The half-hour television programme 'Play-School' is also available each week-day to children of kindergarten age in State capital cities and some country areas.

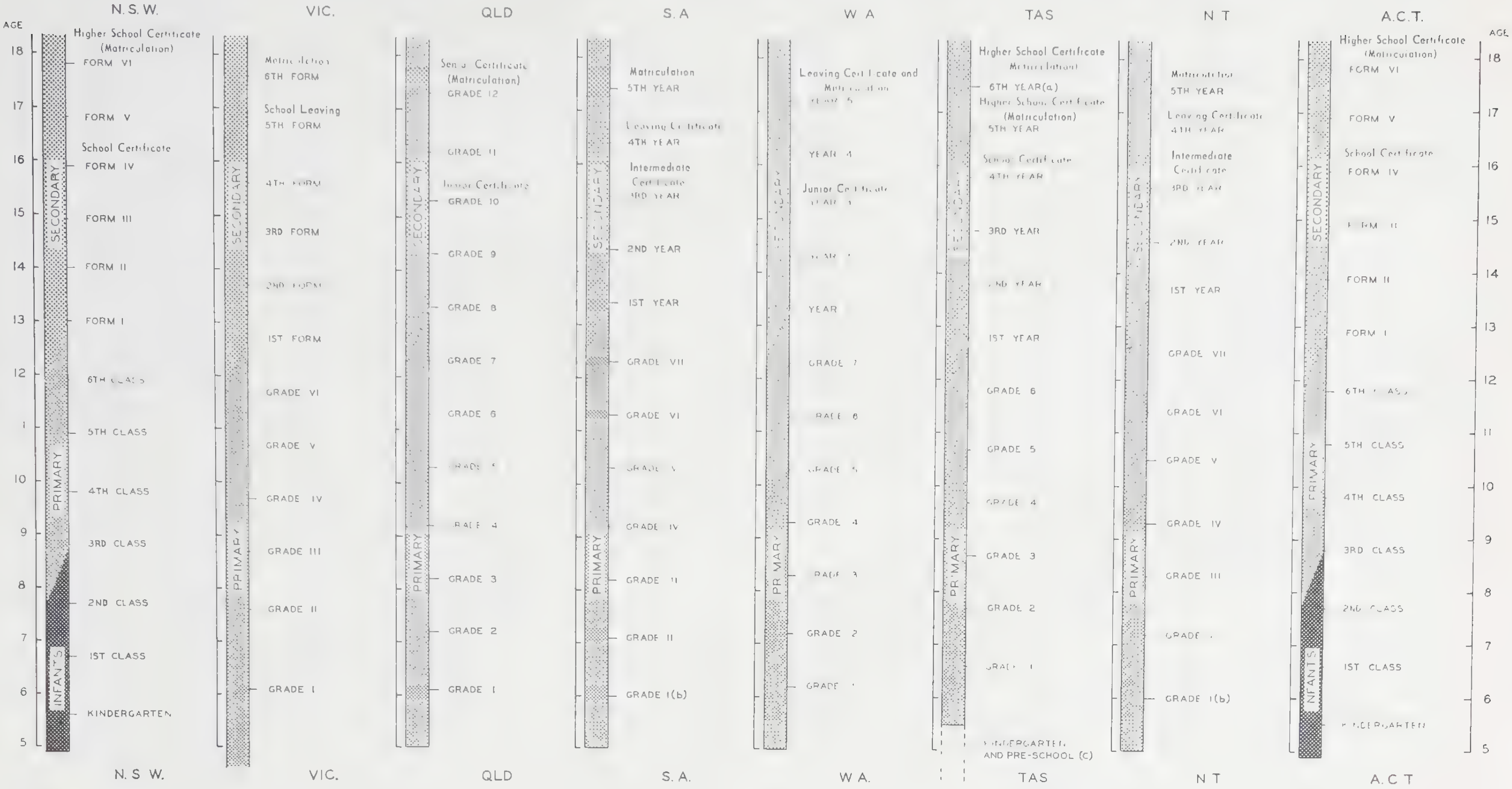
Post-school study courses

As part of the quarterly population survey (*see* Chapter 21, Employment and Unemployment) a survey was conducted in all States and Territories in August 1968 to obtain estimates of persons enrolled for courses of study or training outside school. The results of the survey supplement data about enrolments collected from schools and other institutions, and present a general indication of post-school education.

PLATE 36

GRADES AND EXAMINATIONS IN THE PRIMARY AND SECONDARY SCHOOL SYSTEMS IN EACH STATE AND TERRITORY, 1969

The grade teminology follows, as nearly as possible, that used in government primary and high schools in each State in 1969. It is not necessarily used in all types of schools. The grades have been written in to agree with the age-scale shown on the diagram, in order to indicate differences in age-grade patterns between States. However, age-grade information is not precise enough to allow determination of accurate average age of pupils in each grade; and the age indications are therefore only approximate. The diagram should not be taken as a comparison of academic standards of grades between States. The columns of the diagram have been closed with a line where pupils are not accepted into government schools below the age shown. For a more detailed presentation of the systems operating in each State, reference should be made to diagrams etc. appearing in the annual reports of State Education Departments.



(a) In Tasmania many pupils study for the Higher School Certificate over a two year period.
(b) Preparatory grades are attached to some schools in South Australia and the Northern Territory.
(c) In Tasmania, many children attend two years pre-school, one year kindergarten grade, or one year of both, before entering grade 1.

A course of study was defined for purposes of the survey as the provision of training, instruction, or supervision of study, according to a given syllabus or programme, but excluding sporting, recreational and cultural activities, on-the-job training, correspondence courses which do not require submission of written work or sitting for examinations, full-time courses lasting less than three months, and part-time courses lasting less than six months.

The survey was not designed to yield detailed accurate information about total enrolments in particular courses or in particular institutions. Differences between figures of enrolments at universities, colleges of advanced education, etc., derived from this survey, and those derived from statistical collections from institutions arise because the survey estimates are based on a sample. Also, there are differences in timing, and it was not always possible to use the same definitions.

For the purposes of the survey, *advanced level courses* are, broadly, those leading to professional qualifications and usually requiring as pre-requisites the completion of secondary education to matriculation level or its equivalent. *Technician level courses* are intermediate between courses leading to professional qualifications and those leading to trade qualifications. Most certificate courses in technical colleges are at this level. Technician level courses have been classified according to field of study as technical (mainly engineering and technological), commercial (accounting, administration, secretarial, etc.) or other (including nursing). *Trade level courses*, mainly apprenticeship courses, usually supplement on-the-job training for skilled manual occupations. *Miscellaneous courses* are those which cannot be allocated to the above levels. They have been classified into those providing instruction (for persons not at school) in school subjects for school qualifications, commercial courses below the technician level (mainly typing and shorthand) and other courses, such as more substantial adult education courses, which do not belong to one of the three levels. 'Post-trade', 'post-certificate', 'post-diploma', and 'post-graduate' courses (i.e. courses, usually shorter, providing specialised further training within a level) are not classified as miscellaneous but are associated with each level.

A classification was made of persons enrolled for post-school study courses according to the type of institution providing the course. Educational institutions (such as universities, colleges of advanced education, teachers colleges, technical colleges) were distinguished from other institutions not primarily set up for teaching purposes, such as employers providing courses for their employees and hospitals at which nurses are trained (teaching hospitals); also government institutions were distinguished from non-government institutions. For the purposes of this classification, universities, colleges of advanced education, hospitals where nursing training is provided, and similar government-supported or semi-governmental institutions, were classified as government. Teachers colleges include government and non-government teachers colleges and kindergarten teachers colleges. Colleges of advanced education are those which were recognised as such under the *States Grants (Colleges of Advanced Education) Act* at the time of the survey.

The labour force comprises all persons who, during survey week (the week immediately preceding that in which the interview took place), were either employed or unemployed according to the definitions customarily used in the population survey. (For detailed definitions *see* Chapter 21, Employment and Unemployment.) The remainder of the population is classified as not in the labour force, and includes pupils at school and full-time students at other educational institutions, who were neither employed nor unemployed. Wage and salary earners are defined as persons who, during survey week, either worked (or had a job but did not work because of illness, etc.) for wages, salary, commission, kind, etc., or who were unemployed during survey week but worked for wages, salary, etc. in their last job. Trainee teachers at teachers colleges are classified as wage and salary earners.

The survey covered all persons aged fifteen years and over except members of the permanent armed forces, national servicemen enlisted in the Regular Army Supplement and certain diplomatic personnel customarily excluded from the population censuses and estimates. Persons regarded as patients of institutions such as hospitals, sanatoria and nursing homes were also excluded from the survey.

Estimates derived from the survey were published in a mimeographed bulletin, *Survey of Non-School Study Courses, August* 1968 (reference No. 13.11). The following tables summarise the results. Estimates less than 4,000 are not shown because these would be subject to such high standard errors (relative to the size of the estimate) as to seriously detract from their value for most reasonable uses. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable. For details of the reliability of estimates (sampling and non-sampling errors) *see* section 'The labour force survey', chapter 21, Employment and unemployment, pages 694–6.

PERSONS ENROLLED FOR POST-SCHOOL STUDY COURSES: TYPE AND LEVEL OF COURSE AND FIELD OF STUDY, AUSTRALIA, AUGUST 1968

('000)

	Males			*Females*			*Persons*		
	Full-time	*Other (a)*	*Total*	*Full-time*	*Other (a)*	*Total*	*Full-time*	*Other (a)*	*Total*
Advanced level courses—									
University degree and professional diploma(*b*)	46.1	42.2	88.3	15.9	8.9	24.8	62.0	51.1	113.1
Teacher education(*c*)	6.4	7.0	13.4	16.0	2.8	18.8	22.4	9.8	32.2
Other(*d*)	(*e*)	14.4	16.0	(*e*)	(*e*)	(*e*)	(*e*)	16.3	19.0
Total	*54.1*	*63.6*	*117.7*	*33.0*	*13.4*	*46.6*	*87.1*	*77.2*	*164.3*
Technician level courses—									
Technical fields	(*e*)	26.2	27.4	(*e*)	2.0	(*e*)	(*e*)	28.3	29.6
Commercial fields	(*e*)	31.4	32.5	(*e*)	4.8	6.9	(*e*)	36.2	39.4
All other fields	(*e*)	11.8	14.5	(*e*)	29.7	32.3	5.3	41.5	46.8
Total	*5.0*	*69.4*	*74.4*	*4.8*	*36.5*	*41.3*	*9.8*	*106.0*	*115.7*
Trade level courses	(*e*)	99.0	*100.4*	(*e*)	6.2	*6.6*	(*e*)	105.2	*107.0*
Miscellaneous courses—									
School subjects	(*e*)	18.7	19.0	(*e*)	8.3	8.7	(*e*)	27.0	27.8
Commercial fields	(*e*)	10.2	10.6	(*e*)	16.0	19.4	(*e*)	26.2	30.1
All other fields	(*e*)	28.1	28.8	(*e*)	41.7	42.6	(*e*)	69.8	71.4
Total	(*e*)	*57.0*	*58.5*	*4.7*	*66.0*	*70.7*	*6.3*	*123.0*	*129.2*
All courses	**62.1**	**289.0**	**351.1**	**42.9**	**122.4**	**165.2**	**105.0**	**411.4**	**516.4**

(*a*) Part-time and correspondence courses. (*b*) Degree and post-graduate courses at universities and advanced level courses at colleges of advanced education. (*c*) Any teacher training courses so reported, regardless of whether they were being taken at universities, teachers colleges, or any other institution. (*d*) Advanced level courses at institutions other than universities, colleges of advanced education, or teachers colleges. (*e*) Less than 4,000.

PERSONS ENROLLED FOR POST-SCHOOL STUDY COURSES: TYPE OF INSTITUTION AUSTRALIA, AUGUST 1968

('000)

Type of institution	*Males*	*Females*	*Persons*
Universities and teachers colleges	81.3	43.9	125.2
Colleges of advanced education	75.4	14.9	90.3
Other government education institutions(*a*)	130.3	48.0	178.4
Other government authorities(*b*)	13.9	26.4	40.3
Non-government education institutions(*c*)	36.4	15.8	52.2
Other non-government bodies	13.9	16.2	30.0
All institutions	**351.1**	**165.2**	**516.4**

(*a*) Includes the teaching of school subjects outside schools, whether provided by government or private bodies. (*b*) Includes public (teaching) hospitals. (*c*) Includes 'private' (personal) teaching.

PERSONS ENROLLED FOR POST-SCHOOL STUDY COURSES: AGE AND MARITAL STATUS, AUSTRALIA, 1968

	Age 15–19		*20–24*		*25–29*		*30–44*		*45 and over*		*Total*	
	Number ('000)	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*
Males—												
Married	(*b*)	..	19.6	132	29.4	98	47.8	48	8.2	6	106.8	38
Not married(*c*)	133.0	393	93.1	277	12.5	119	4.8	32	(*b*)	..	244.3	203
Total	*134.7*	*391*	*112.7*	*233*	*41.9*	*103*	*52.7*	*46*	*9.2*	*6*	*351.1*	*87*
Females—												
Married	(*b*)	..	7.4	26	5.5	16	17.2	17	10.0	9	40.5	14
Not married(*c*)	76.0	231	36.9	187	5.0	113	(*b*)	..	(*b*)	..	124.7	96
Total	*76.4*	*209*	*44.4*	*91*	*10.5*	*27*	*21.0*	*19*	*13.0*	*7*	*165.2*	*40*
Persons—												
Married	(*b*)	..	27.1	62	35.0	54	65.0	33	18.2	7	147.3	26
Not married(*c*)	209.0	313	130.0	244	17.5	117	8.6	36	4.0	4	369.0	147
Total	**211.0**	**297**	**157.0**	**162**	**52.4**	**66**	**73.7**	**33**	**22.2**	**6**	**516.4**	**63**

(*a*) Per 1,000 of population of the same age, sex, and marital status not at school. (*b*) Less than 4,000 (*c*) Includes single, widowed, divorced, and permanently separated.

PERSONS ENROLLED FOR POST-SCHOOL STUDY COURSES: OCCUPATIONAL STATUS OCCUPATION AND LEVEL OF COURSE, AUSTRALIA, AUGUST 1968
('000)

Occupational status and occupation	*Level of course* *Advanced*	*Technician*	*Trade*	*Miscellaneous*	*Total*
	MALES				
Wage and salary earners—					
Professional, technical and related workers	44.3	16.7	(*a*)	6.9	68.6
Administrative, clerical and sales workers	23.5	28.4	(*a*)	21.9	75.1
Craftsmen, production workers, etc.	4.1	18.8	94.4	12.0	129.3
Others	(*a*)	4.9	(*a*)	7.7	17.4
Total, wage and salary earners	*73.7*	*68.7*	*99.4*	*48.5*	*290.4*
Others in the labour force	(*a*)	(*a*)	(*a*)	4.1	9.0
Total in the labour force	*75.5*	*71.1*	*100.3*	*52.6*	*299.4*
Not in the labour force	42.3	(*a*)	(*a*)	6.0	51.7
Total	**117.7**	**74.4**	**100.4**	**58.5**	**351.1**
	FEMALES				
Wage and salary earners—					
Professional, technical and related workers	21.9	29.6	(*a*)	7.0	58.7
Administrative, clerical and sales workers	(*a*)	5.5	(*a*)	24.3	33.4
Craftsmen, production workers, etc.	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Others	(*a*)	(*a*)	5.8	4.3	11.8
Total, wage and salary earners	*26.0*	*36.6*	*6.2*	*37.7*	*106.5*
Others in the labour force	(*a*)	(*a*)	(*a*)	4.1	5.0
Total in the labour force	*26.4*	*37.0*	*6.3*	*41.8*	*111.5*
Not in the labour force	20.2	4.3	(*a*)	28.9	53.7
Total	**46.6**	**41.3**	**6.6**	**70.7**	**165.2**
	PERSONS				
Wage and salary earners—					
Professional, technical and related workers	66.2	46.3	(*a*)	13.9	127.2
Administrative, clerical and sales workers	26.8	33.9	(*a*)	46.2	108.5
Craftsmen, production workers, etc.	4.1	19.3	94.4	14.2	132.0
Others	(*a*)	5.9	8.8	12.0	29.2
Total, wage and salary earners	*99.7*	*105.4*	*105.7*	*86.2*	*396.9*
Others in the labour force	(*a*)	(*a*)	(*a*)	8.1	14.0
Total in the labour force	*101.8*	*108.1*	*106.6*	*94.3*	*410.9*
Not in the labour force	62.5	7.6	(*a*)	34.9	105.4
Total	**164.3**	**115.7**	**107.0**	**129.2**	**516.4**

(*a*) Less than 4,000.

Universities

Applicants for enrolment in Australian universities are required to have passed the matriculation examination in one of the States after five or six years of secondary education. Each university has its own regulations for matriculation, specifying the number and combination of subjects to be passed or the level of performance required. Students entering the universities have the choice of undergraduate study in various faculties. All universities provide also post-graduate courses of study.

There are fifteen universities and two university colleges in Australia. The James Cook University of North Queensland, which was formerly the University College of Townsville, was raised to the status of a full university in 1970. Details of the courses offered by these institutions, together with background information on their teaching and research programmes, and a summary of general university development in recent years, is given in Year Book No. 55, pages 507 to 509.

The following tables show statistics of university staff, student enrolments, assisted students, degrees conferred, diplomas and certificates granted, income and expenditure. The first table gives summary statistics for each university and branch whereas the other tables provide State figures only. Reference should also be made to the annual publications *University Statistics, Parts I–III* for further details.

UNIVERSITIES: SUMMARY STUDENT AND STAFF STATISTICS FOR EACH UNIVERSITY AND BRANCH, 1969

	Students enrolled(a) for				*Teaching and research staff(b)*		*Other staff*	
	Higher degree courses	*Bachelor degree courses*	*Non-degree courses*	*All students*	*Full-time*	*Part-time(c)*	*Full-time*	*Part-time(d)*
New South Wales—								
University of Sydney	2,306	12,492	1,287	16,085	971	1,418	2,070	46
University of New South Wales—								
Kensington	1,768	11,127	1,708	14,603	851	713	1,684	81
Wollongong University College	75	888	89	1,052	68	26	80	2
Broken Hill Division	4	87	19	110	13	10	23	1
Duntroon	..	125	..	125	35	2	..	..
Jervis Bay	..	30	..	30	(e)	(e)	(e)	(e)
Total, University of New South Wales	*1,847*	*12,257*	*1,816*	*15,920*	*967*	*752*	*1,787*	*84*
University of New England	264	4,289	601	5,154	309	98	702	51
University of Newcastle	234	2,435	167	2,836	170	139	186	2
Macquarie University	369	2,886	200	3,455	223	129	376	15
Total, New South Wales	*5,020*	*34,359*	*4,071*	*43,450*	*2,640*	*2,535*	*5,121*	*198*
Victoria—								
University of Melbourne	1,409	11,509	1,580	14,498	951	1,032	1,646	60
Monash University	752	8,090	700	9,542	682	432	1,478	166
La Trobe University	128	1,850	74	2,052	174	74	348	58
Total, Victoria	*2,289*	*21,449*	*2,354*	*26,092*	*1,807*	*1,538*	*3,472*	*284*
Queensland—								
University of Queensland—								
St Lucia	864	13,183	872	14,919	870	784	1,672	33
Townsville University College	70	764	20	854	110	35	189	61
Total, Queensland	*934*	*13,947*	*892*	*15,773*	*980*	*819*	*1,861*	*94*
South Australia—								
University of Adelaide	814	7,113	664	8,591	520	638	1,069	162
Flinders University	113	1,322	102	1,537	137	78	274	45
Total, South Australia	*927*	*8,435*	*766*	*10,128*	*657*	*716*	*1,343*	*207*
Western Australia—								
University of Western Australia	528	6,089	534	7,151	429	552	914	96
Tasmania—								
University of Tasmania	159	2,280	391	2,830	194	218	335	42
Australian Capital Territory—								
Australian National University—								
Institute of Advanced Studies	532	..	6	538	..	..	1,129	..
School of General Studies	146	3,329	256	3,731	302	47	311	..
Total, Australian Capital Territory	*678*	*3,329*	*(f)231*	*(f)4,238*	*302*	*47*	*(g)2,228*	*(g)29*
Total, All Universities	**10,535**	**89,888**	**9,239**	**109,662**	**7,009**	**6,425**	**15,274**	**950**

(*a*) Students enrolled for more than one course are only counted once. (*b*) Includes all staff with teaching functions but excludes research only staff. (*c*) Expressed as units of 100 teaching hours per annum. (*d*) Equivalent full-time units. (*e*) No university staff are at present attached to the R.A.N. College, Jervis Bay. (*f*) Adjusted for students enrolled at both the Institute and the School. (*g*) Includes 788 full-time and 29 part-time positions not allocated to either the Institute or the School.

University teaching and research staff

UNIVERSITIES: TEACHING AND RESEARCH STAFF(*a*), 1969

	Full-time teaching and research staff							
	Professors	*Associate professors and readers*	*Senior lecturers and lecturers*	*Assistant lecturers, demonstrators, etc.(b)*	*Total*	*Part-time teaching staff(c)*	*Full-time research only staff*	*Part-time research only staff(d)*
New South Wales	279	237	1,505	619	2,640	2,535	582	13
Victoria	197	150	1,049	411	1,807	1,538	350	30
Queensland	82	90	526	282	980	819	173	14
South Australia	98	58	409	92	657	716	268	15
Western Australia	54	49	242	84	429	552	154	7
Tasmania	31	21	101	41	194	218	32	10
Australian Capital Territory	36	33	179	54	302	47	876	..
Australia—1969	**777**	**638**	**4,011**	**1,583**	**7,009**	**6,425**	**2,435**	**89**
1968	721	581	3,706	1,479	6,487	r6,197	2,367	82
1967	663	547	3,497	r1,337	r6,004	r5,378	r2,233	78
1966	615	487	3,297	1,261	5,660	r5,641	r2,046	82
1965	522	449	3,028	1,085	5,104	r5,153	r1,729	63

(*a*) Filled positions. Teaching and research staff includes all staff with teaching functions, but excludes research only staff which is shown separately. (*b*) Includes tutors and teaching fellows. (*c*) Expressed in units of 100 teaching hours per annum. (*d*) In equivalent full-time units of 35 hours per week.

University students enrolled

UNIVERSITIES: STUDENTS ENROLLED(*a*), 1969

	Degree courses		*Diploma courses*				
	Higher degree	*Bachelor degree*	*Post-graduate*	*Sub-graduate*	*Certificate courses*	*Other courses (b)*	*Adjusted total(c)*
New South Wales	5,040	34,509	2,407	671	505	1,267	43,450
Victoria	2,298	22,091	787	647	..	1,066	26,092
Queensland	934	13,947	244	174	74	400	15,773
South Australia	927	8,486	322	298	13	174	10,128
Western Australia	528	6,091	276	..	..	273	7,151
Tasmania	159	2,285	193	2	43	176	2,830
Australian Capital Territory	678	3,329	..	..	..	262	4,238
Australia—1969	**10,564**	**90,738**	**4,229**	**1,792**	**635**	**3,618**	**109,662**
1968	9,230	84,317	3,596	1,876	459	3,662	101,537
1967	8,562	78,825	3,075	2,093	495	3,555	95,380
1966	6,995	76,453	2,472	2,625	267	3,556	91,291
1965	5,672	69,540	2,160	3,277	361	3,444	83,349

(*a*) Figures shown refer to gross enrolments, i.e. students enrolled for two or more courses are included in each course for which they are enrolled. (*b*) Includes post-doctoral courses, master preliminary courses and students enrolled in one or more subjects of a normal course without having been admitted to the course as a whole. Prior to 1968 some enrolments for master preliminary were included in higher degree. (*c*) Adjusted for students enrolled for more than one course.

Of the students enrolled in 1969, 77,822 were males and 31,840 were females.

UNIVERSITY STUDENTS ENROLLED: COURSES

AUSTRALIA, 1965 TO 1969

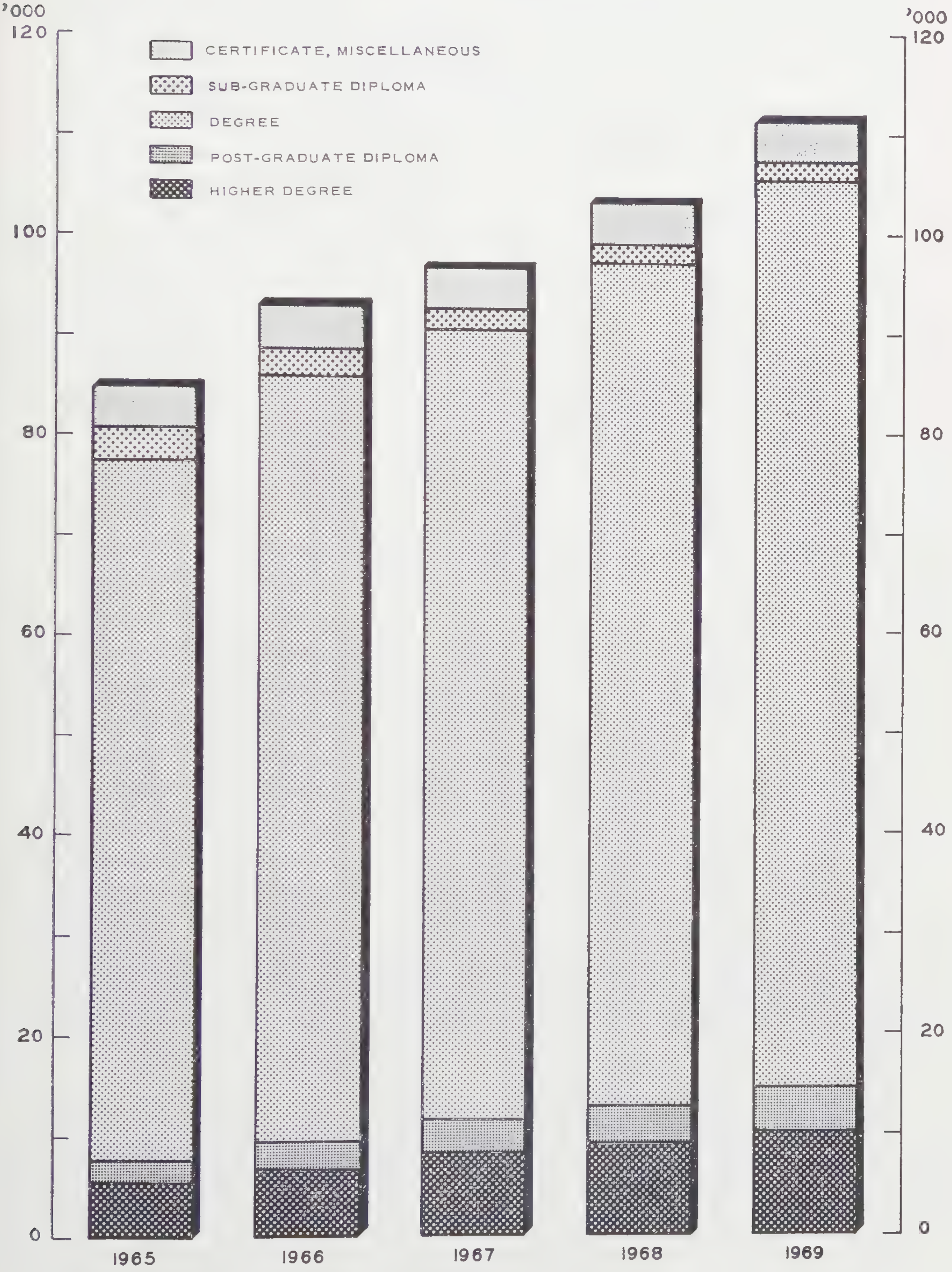


PLATE 37

University students commencing courses

UNIVERSITIES: STUDENTS COMMENCING HIGHER DOCTOR, PH.D. MASTER AND BACHELOR DEGREE COURSES FOR THE FIRST TIME IN ANY AUSTRALIAN UNIVERSITY, 1969(*a*)(*b*)

	Higher doctor degree courses	*Ph.D. degree courses*	*Master degree courses*	*Bachelor degree courses*
New South Wales . . .	7	298	1,340	10,740
Victoria(*c*)	..	89	197	6,187
Queensland	7	122	136	3,103
South Australia	12	108	162	1,983
Western Australia . . .	..	64	86	1,761
Tasmania	..	18	20	648
Australian Capital Territory .	..	150	33	1,096
Australia—1969 . . .	**26**	**849**	**1,974**	**25,518**
1968 . . .	32	732	1,705	23,499

(*a*) Figures shown refer to gross enrolments, i.e. students enrolled for two or more courses are included in each course for which they are enrolled. (*b*) These statistics, available from 1968, replace statistics of new students enrolled which were shown for 1967 and earlier years. Some universities have been unable to supply figures for the new basis. (*c*) Figures for the University of Melbourne refer to students enrolling for the first time at that university.

Of students commencing courses in 1969, 18,978 were males and 9,389 were females.

Full-time and other university students by level of course

UNIVERSITIES: FULL-TIME AND OTHER STUDENTS ENROLLED BY LEVEL OF COURSE(*a*), 1969

	Higher degree courses			*Bachelor degree courses*		*Other courses and enrolments(c)*		*All students*		
	Full-time	*Staff(b)*	*Other*	*Full-time*	*Other*	*Full-time*	*Other*	*Full-time*	*Other*	*Total*
New South Wales .	1,590	638	2,792	22,776	11,583	1,854	2,217	26,220	17,230	43,450
Victoria . .	1,224	418	647	16,838	4,611	832	1,522	18,894	7,198	26,092
Queensland . .	294	300	340	7,113	6,834	281	611	7,688	8,085	15,773
South Australia .	497	148	282	6,045	2,390	316	450	6,858	3,270	10,128
Western Australia .	220	68	240	4,047	2,042	140	394	4,407	2,744	7,151
Tasmania . .	74	34	51	1,752	528	124	267	1,950	880	2,830
Australian Capital Territory . .	545	59	74	1,754	1,575	32	199	2,331	1,907	4,238
Australia—1969 .	**4,444**	**1,665**	**4,426**	**60,325**	**29,563**	**3,569**	**5,660**	**68,348**	**41,314**	**109,662**
1968 .	3,996	n.a.	3,575	55,538	27,957	3,201	5,629	62,735	38,802	101,537
1967(*d*)	4,088	n.a.	4,113	51,841	26,984	3,347	5,887	58,325	37,055	95,380
1966(*d*)	3,354	n.a.	3,295	50,500	25,953	3,540	5,633	56,279	35,012	91,291
1965(*d*)	2,658	n.a.	2,703	44,942	24,598	3,521	5,891	50,202	33,147	83,349

(*a*) Figures shown for 1968 and 1969 refer to net enrolments, i.e. gross enrolments adjusted for students enrolled for more than one course. If a student is enrolled for two or more courses at different levels, the adjustment is made against the lesser course. (*b*) These are full-time university staff enrolled in higher degree courses. (*c*) Includes post-graduate diploma, sub-graduate diploma, certificate and other non-degree course and enrolment. (*d*) Figures shown are gross enrolments except in the 'all students' columns.

Assistance to university students

The Commonwealth Government, through the Commonwealth Scholarships Board, grants undergraduate and post-graduate scholarships to university students. (Details of the Commonwealth Scholarship Scheme are given on page 665. Commonwealth, State and local governments also award cadetships and other assistance to their employees. Foreign students are assisted by the Commonwealth Government under arrangements such as the Colombo Plan. The universities themselves grant exhibitions and scholarships as well as special assistance to teachers, etc.

UNIVERSITIES: ASSISTED STUDENTS, 1969

	Source of assistance					*Type of course*	
	Commonwealth Government	*State Governments*	*Universities*	*Other*	*Adjusted total(a)*	*Higher degree*	*Other*
New South Wales	10,915	4,753	11,213	936	22,811	1,935	20,880
Victoria	9,444	5,120	7,455	337	17,899	1,404	16,495
Queensland	4,540	1,175	727	203	6,645	645	6,000
South Australia	3,446	2,236	1,392	165	7,080	697	6,383
Western Australia	2,111	1,905	863	173	5,051	315	4,736
Tasmania	853	632	122	82	1,573	107	1,466
Australian Capital Territory	1,123	366	628	80	2,404	610	1,494
Australia—1969	**32,432**	**16,187**	**22,400**	**1,976**	**63,163**	**5,713**	**57,454**
1968	29,355	14,589	20,392	1,651	57,417	4,992	52,447
1967	27,320	15,499	16,204	1,813	53,466	4,738	48,728
1966	24,611	14,793	15,298	2,161	48,800	3,938	44,862
1965	21,233	13,660	14,875	1,904	44,078	3,218	40,860

(*a*) Adjustment made for students assisted from more than one source. For 1968 and 1969, also adjusted for students who received assistance for a higher degree and another course.

University degrees conferred, etc.

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED YEAR ENDED 30 JUNE 1969

	Degrees				*Diplomas*		
	Higher doctor	*Ph.D.*	*Master*	*Bachelor*	*Post-graduate*	*Sub-graduate*	*Certificates*
New South Wales(*a*)	22	174	429	5,240	1,248	28	454
Victoria(*b*)	13	111	203	3,455	504	129	. .
Queensland	4	44	65	1,710	170	92	185
South Australia	5	53	47	1,330	126	154	. .
Western Australia	7	34	36	786	116	. .	. .
Tasmania	1	12	10	425	73	3	34
Australian Capital Territory	1	62	21	514	. .	. .	. .
Australia—1969	**53**	**490**	**811**	**13,360**	**2,237**	**406**	**673**
1968(*c*)	31	(13)475	(11)740	(15)11,576	1,939	(9)557	(24)471
1967	40	327	635	10,393	1,454	445	570
1966	47	336	565	9,019	1,304	499	331
1965	37	276	475	7,839	1,050	498	332

(*a*) No awards have yet been made at Macquarie University. (*b*) No awards have yet been made at La Trobe University. (*c*) Figures for the years 1965 to 1967 refer to the year ended 31 July; those for 1968 onwards refer to the year ended 30 June. Figures included in both 1967 and 1968 are shown in brackets against 1968 figures.

University income and expenditure

UNIVERSITIES: INCOME, 1968
($'000)

	Government grants(a)		*Other income*			
	Cwlth Government grants	*State Government grants*	*Donations and endowments(b)*	*Student fees(c)*	*Other income*	*Total income*
			TOTAL INCOME			
New South Wales	25,841	28,917	4,722	7,255	3,656	70,390
Victoria	19,347	20,990	2,490	6,201	2,291	51,318
Queensland	6,713	8,130	2,742	3,293	537	21,416
South Australia	7,114	7,955	533	1,560	870	18,032
Western Australia	3,895	4,352	864	1,423	851	11,386
Tasmania	2,418	2,511	179	631	209	5,948
Australian Capital Territory	23,471	..	454	556	1,334	25,816
Australia—1968	**88,798**	**72,855**	**11,984**	**20,919**	**9,748**	**204,306**
1967	79,872	64,304	10,461	19,145	8,597	182,379
1966	71,012	65,509	10,781	16,653	7,053	171,008
1965	64,537	56,993	9,885	14,869	5,895	152,178
1964	54,203	46,449	8,569	11,833	5,598	126,652

(*a*) Includes funds expended by various government departments and other bodies in respect of universities but not controlled by the universities. (*b*) In the case of endowments, only income from property and other investment of these endowments is included. The treatment of donations depends on the terms of the gift, etc. When the capital sum is specified to be expended over several years, only the portion of the capital sum allocated to each year is shown as income in that year, but if the capital sum is available for spending without limitation as to time, the full amount is recorded as income in the year it is received, irrespective of whether it is spent in that year or not. The capital value of land and buildings donated to the universities is not recorded as income, unless these properties are sold, in which case the amounts realised are included. (*c*) Excludes fees collected on behalf of student unions, adult education fees, ad hoc course fees and public examination fees.

UNIVERSITIES: EXPENDITURE, 1968
($'000)

	Teaching and research	*Administration and general overhead*	*Libraries*	*Buildings, premises, grounds*	*Sundry auxiliary expenditure*	*Total expenditure*
New South Wales	40,563	5,964	3,232	19,092	4,148	73,000
Victoria	27,441	3,915	2,341	16,150	2,617	52,465
Queensland	14,343	1,355	955	3,944	682	21,279
South Australia	11,416	1,128	901	3,151	1,519	18,116
Western Australia	6,693	806	480	2,098	992	11,069
Tasmania	3,082	436	320	1,828	279	5,946
Australian Capital Territory	15,855	1,957	899	5,559	1,499	25,769
Australia—1968	**119,394**	**15,563**	**9,129**	**51,823**	**11,737**	**207,645**
1967	106,386	13,298	7,915	48,061	9,056	184,714
1966	93,410	11,915	6,857	42,498	7,779	162,459
1965	83,256	10,159	5,830	43,976	6,526	149,747
1964	69,886	7,870	4,664	33,929	5,508	121,857

Colleges of advanced education

The Committee on the Future of Tertiary Education in Australia recommended that interim capital grants be made by both the States and the Commonwealth to twelve specified institutions in five States during 1965–66 preliminary to an arrangement for the expansion and development of tertiary education outside the universities. This recommendation was accepted by all governments, and the Commonwealth established the Commonwealth Advisory Committee on Advanced Education to advise it on the continued development of the colleges which provide training with a vocational emphasis, as distinct from the academic education provided by the universities.

In some States the colleges are being developed from existing technological institutions, but new colleges are also being established. Many colleges cater for a number of vocations in fields such as accountancy, architecture, art, applied chemistry, building, business management, data processing, engineering, librarianship, medical laboratory technology, metallurgy, nutrition, pharmacy, and textile sciences. Provision is being made for teacher education to be introduced into a number of these multi-purpose colleges. Other colleges are specialist institutions, such as agricultural colleges, art schools, conservatoria of music, schools of physiotherapy and occupational therapy, and colleges offering courses in advanced nursing administration, domestic science, forestry and horticulture.

Administrative changes are taking place in the States to co-ordinate the activities of colleges of advanced education. In New South Wales, an Advanced Education Board has been established; in Victoria, the co-ordinating powers of the Victoria Institute of Colleges have been strengthened; in Tasmania, a Council of Advanced Education has been created; and in Queensland, legislation is being enacted to make the institutes of technology autonomous under an advanced education board. In some States provision is also being made for co-ordination of all tertiary education; notably through the Higher Education Authority in New South Wales, the Tertiary Education Commission in Western Australia, and the Joint Consultative Council in Tasmania.

Further information about the development of colleges of advanced education can be found in the reports of the Commonwealth Advisory Committee on Advanced Education: the First Report, 1967–69, and the Second Report, 1970–72. Details of the maximum Commonwealth grants for the development of the colleges are given on page 663.

COLLEGES OF ADVANCED EDUCATION: ENROLMENTS IN ADVANCED LEVEL COURSES(*a*), STATES AND A.C.T., 1969

	Full-time			*Other*			*Total*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
New South Wales	263	759	1,022	2,672	101	2,773	2,935	860	3,795
Victoria	5,647	1,589	7,236	7,536	923	8,459	13,183	2,512	15,695
Queensland	920	129	1,049	1,102	59	1,161	2,022	188	2,210
South Australia	947	353	1,300	1,933	178	2,111	2,880	531	3,411
Western Australia	1,300	372	1,672	2,114	367	2,481	3,414	739	4,153
Tasmania	81	137	218	791	136	927	872	273	1,145
Australian Capital Territory	..	..	..	324	13	337	324	13	337
Australia	**9,158**	**3,339**	**12,497**	**16,472**	**1,777**	**18,249**	**25,630**	**5,116**	**30,746**

(*a*) Courses approved by the Minister for Education and Science under the States Grants (Advanced Education) Act.

COLLEGES OF ADVANCED EDUCATION: TOTAL AND FIRST ENROLMENTS IN ADVANCED LEVEL COURSES, BY FIELD OF STUDY, AUSTRALIA, 1969

	Full-time			*Other*			*Total*		
Field of study	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
TOTAL ENROLMENTS									
Engineering and technology	3,753	10	3,763	4,896	14	4,910	8,649	24	8,673
Building surveying, architectural, etc.	747	28	775	1,216	61	1,277	1,963	89	2,052
Applied sciences	1,235	191	1,426	2,267	239	2,506	3,502	430	3,932
Agriculture, etc.	527	21	548	..	..	..	527	21	548
Para-medical	566	1,243	1,809	146	90	236	712	1,333	2,045
Business studies	1,559	492	2,051	6,966	487	7,453	8,525	979	9,504
Art and design	580	847	1,427	666	563	1,229	1,246	1,410	2,656
Music	104	280	384	7	4	11	111	284	395
Liberal studies	87	227	314	308	319	627	395	546	941
Total enrolments	**9,158**	**3,339**	**12,497**	**16,472**	**1,777**	**18,249**	**25,630**	**5,116**	**30,746**
Number of students(*a*)	**9,150**	**3,336**	**12,486**	**16,448**	**1,769**	**18,217**	**25,598**	**5,105**	**30,703**
FIRST ENROLMENTS									
Engineering and technology	1,316	6	1,322	1,213	4	1,217	2,529	10	2,539
Building, surveying, architecture, etc.	264	12	276	277	8	285	541	20	561
Applied sciences	490	98	588	621	89	710	1,111	187	1,298
Agriculture, etc.	272	9	281	..	..	..	272	9	281
Para-medical	226	564	790	51	35	86	277	599	876
Business studies	762	219	981	2,788	172	2,960	3,550	391	3,941
Art and design	282	430	712	182	233	415	464	663	1,127
Music	43	106	149	1	2	3	44	108	152
Liberal studies	43	120	163	116	156	272	159	276	435
Total first enrolments	**3,698**	**1,564**	**5,262**	**5,249**	**699**	**5,948**	**8,947**	**2,263**	**11,210**

(*a*) Adjusted for students enrolled for more than one advanced level course.

COLLEGES OF ADVANCED EDUCATION: TEACHING AND DIRECTLY SUPPORTING STAFF(*a*), STATES AND A.C.T., 1969

	Full-time staff			*Part-time staff*			
	Number		*Advanced level work in equivalent full-time units(d)*	*Number*		*Advanced level work in equivalent full-time units(e)*	*Total (equivalent full-time units) (Col. 3 + Col. 6)*
	Teaching (b) (1)	*Directly supporting(c) (2)*	*(3)*	*Teaching (4)*	*Directly supporting (5)*	*(6)*	*(7)*
New South Wales	(*f*)194	41	200	461	6	(*g*)80	280
Victoria	1,143	177	(*h*)1,171	(*i*)1,300	105	268	1,439
Queensland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Australia	289	63	300	201	..	37	337
Western Australia	218	85	303	176	30	40	343
Tasmania	55	8	60	195	20	39	99
Australian Capital Territory	3	..	3	25	..	7	10

(*a*) Directly supporting staff are those who work in laboratories, etc., and, whilst not teaching, form an integral part of the teaching services. (*b*) Includes the following number of teachers engaged in teaching both advanced level and other courses: New South Wales, 75; Victoria, 513; South Australia, 114; and Tasmania, 8. (*c*) Comprises directly supporting staff wholly engaged in assisting teaching of advanced level courses, and others engaged in assisting teaching of both advanced level and other courses. (*d*) The estimated portion of time (expressed in terms of equivalent full-time staff) devoted to advanced level courses by full-time teaching and directly supporting staff engaged in both advanced level and other work. (*e*) The component of advanced level course work (in terms of equivalent full-time staff) undertaken by all part-time teaching and directly supporting staff engaged during the year. (*f*) Includes some full-time teaching staff not wholly engaged in teaching advanced level courses. (*g*) Full-time equivalent units for 13 part-time teaching staff are not available. (*h*) Full-time equivalent units for 10 teachers are not available. (*i*) Includes 0.85 equivalent full-time units for an unspecified number of part-time teachers.

Teacher education

State education departments recruit most prospective teachers for government service from students leaving schools after completion of secondary education. Each department offers training awards annually on the basis of academic merit and personal suitability. These awards cover the cost of a teacher training course (which may include university studies) and provide a living allowance. Students are usually required to enter into an agreement to serve for a specified number of years in the government schools of the State where they have trained. In some States intending teachers can obtain a scholarship at the first public secondary examination to enable them to complete teachers college entrance requirements. Such an award entails a bond of service for a longer period.

The State education departments conduct teachers colleges to train teachers for government schools. These colleges are co-educational and, in the larger States, have been established in country areas as well as in cities. The principal and staff of the colleges are responsible to the Director-General of Education in the State concerned. Teachers colleges are also conducted by other organisations. For details of Commonwealth financial assistance to the States for building projects, *see* pages 671–2.

In 1969, there were 9 government teachers colleges in New South Wales, 14 in Victoria, 4 in Queensland, 5 in South Australia, 3 in Western Australia and 2 in Tasmania. Excluding kindergarten teachers colleges (*see* page 655) there were 8 private colleges in New South Wales, 6 in Victoria, 1 in Queensland, and 1 in the Australian Capital Territory. The Australian School of Pacific Administration in New South Wales also conducts teacher education courses.

Teachers for government schools

Training of teachers. Most teachers for government primary schools are trained in teachers colleges. Intending secondary school teachers either obtain a university degree with additional professional teaching training such as a Diploma in Education, or are required to hold a diploma or certificate from a teachers college. Teachers of specialist subjects, such as music, art, manual arts, domestic science, and commercial subjects, receive from two to five years training which varies according to the institution concerned and the type of school in which the teacher is to serve. Where the specialist course is given at an institution other than the teachers college—e.g. at a university, technical college, or conservatorium of music, students are required to attend teachers college or university lectures in education, and in some cases the specialist course is followed by a year of professional training. Courses designed to train physical education teachers are offered in universities in most States, and in at least one teachers college in every State.

Training for teachers of agricultural subjects in secondary schools consists of either an agricultural college diploma or a university degree course together with professional training. Teachers of technical subjects in secondary schools may be trained in manual or industrial arts courses of two to four years' duration, at teachers colleges, technical colleges, or, in one State, at a university.

At several Australian universities, students wishing to take up teaching as a profession can receive their professional training along with the study of their teaching subjects as part of a first degree course. Courses of a similar nature are available at some colleges of advanced education where teacher education courses are integrated into the general teaching of the college.

The following table shows departmental students undergoing teacher education courses in 1969. Departmental students are those awarded State education department scholarships or fellowships and who have executed an agreement for periods of teaching service after completion of their teacher education. The table also shows private students at government colleges, including those sponsored by government departments other than State education departments. The figures exclude enrolments for short refresher courses and summer schools. The figures include 708 departmental students at various universities who have not been enrolled at a teachers college. Some students enrolled at universities may take part of their university course at a teachers college (e.g. graduate students in New South Wales undergoing a 'professional year' leading to the award by the university of Diploma in Education).

GOVERNMENT TEACHERS COLLEGES: ENROLMENTS, STATES, 1969(*a*)

	N.S.W.	Vic.(b)	Qld	S.A.	W.A.	Tas.	Australia		
							Males	Females	Persons
DEPARTMENTAL STUDENTS									
Attending teachers college and not enrolled elsewhere—									
For primary teaching .	2,939	4,682	2,160	1,313	1,079	448	2,683	9,938	12,621
For secondary teaching .	1,159	1,746	688	370	62	59	1,833	2,251	4,084
Total . .	*4,098*	*6,428*	*2,848*	*1,683*	*1,141*	*507*	*4,516*	*12,189*	*16,705*
Enrolled at university or other institution—									
For primary teaching .	..	131	..	298	59	..	157	331	488
For secondary teaching .	5,896	4,967	773	1,802	1,023	10	6,726	7,745	14,471
Not specified as primary or secondary teaching.	..	..	..	..	..	607	261	346	607
Total . .	*5,896*	*5,098*	*773*	*2,100*	*1,082*	*617*	*7,144*	*8,422*	*15,566*
All departmental students .	*9,994*	*11,526*	*3,621*	*3,783*	*2,223*	*1,124*	*11,660*	*20,611*	*32,271*
Length of course—									
For primary teaching—									
1 year course(*c*) . .	..	113	..	..	..	..	50	63	113
2 year course . .	2,641	2,236	1,783	619	780	138	1,787	6,410	8,197
3 year course . .	298	2,350	377	934	358	310	923	3,704	4,627
4 year and longer courses	..	114	..	58	..	..	80	92	172
Total . .	*2,939*	*4,813*	*2,160*	*1,611*	*1,138*	*448*	*2,840*	*10,269*	*13,109*
For secondary teaching—									
1 year course . .	..	276	154	..	..	..	256	174	430
2 year course . .	602	331	1,012	..	..	9	776	1,178	1,954
3 year course . .	557	568	78	619	229	31	728	1,354	2,082
4 year and longer courses	5,896	5,538	217	1,553	856	29	6,799	7,290	14,089
Total . .	*7,055*	*6,713*	*1,461*	*2,172*	*1,085*	*69*	*8,559*	*9,996*	*18,555*
Not specified as primary or secondary teaching—									
1 year course(*c*) . .	..	..	..	..	..	36	10	26	36
2 year course . .	..	..	..	..	..	79	36	43	79
3 year course . .	..	..	..	..	..	103	42	61	103
4 year and longer courses	..	..	..	..	..	389	173	216	389
Total . .	..	..	..	..	..	*607*	*261*	*346*	*607*
All departmental students .	*9,994*	*11,526*	*3,621*	*3,783*	*2,223*	*1,124*	*11,660*	*20,611*	*32,271*
OTHER STUDENTS									
For primary teaching . .	35	26	..	88	29	7	67	118	185
For secondary teaching .	163	62	..	47	10	1	122	161	283
Not specified	64	..	..	..	..	..	16	48	64
Total . .	*262*	*88*	..	*135*	*39*	*8*	*205*	*327*	*532*
Total students(*b*)(*d*)	**10,256**	**11,614**	**3,621**	**3,918**	**2,262**	**1,132**	**11,865**	**20,938**	**32,803**

(*a*) There are no government teachers colleges in the Australian Capital Territory and the Northern Territory. (*b*) Excludes enrolments in part-time courses, at the Technical Teachers College, Victoria, of 283 practising teachers from government schools and council controlled technical colleges. The figures also exclude 221 Technical Teachers College students undergoing one or two years industrial experience. (*c*) These one year courses are chiefly extension courses for students who have qualified as teachers and for practising teachers, or for students already holding approved subject qualifications. However, practising teachers in such courses were excluded from the tables. (*d*) This table excludes 26 male and 19 female female students enrolled in courses for primary teaching, and 67 male and 34 female students enrolled in courses for secondary teaching at the Australian School of Pacific Administration.

The following table shows departmental students enrolled in the first year of their courses and also those enrolled in the final year of their courses. The figures exclude enrolments in one year courses (*see* footnote (*c*) to the preceding table).

DEPARTMENTAL STUDENTS ENROLLED IN THE FIRST AND IN THE FINAL YEAR OF COURSE, 1969

							Australia		
	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Males*	*Females*	*Persons*
Enrolled in the first year of a course	4,652	4,368	1,886	1,398	1,082	446	4,754	9,078	13,832
Enrolled in the final year of a course	2,815	2,982	1,430	1,172	670	330	2,751	6,648	9,399

In-service training. As almost all teachers now enter the profession by way of teachers colleges or universities, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training. In-service training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evening. In some States in-service courses for teachers in remote areas are provided by correspondence. In some States there are also in-service courses for special groups of teachers such as headmasters or teachers in one-teacher schools. In addition, district inspectors are responsible for organising short conferences of teachers, where professional topics are discussed. Education departments encourage teachers to pursue university courses and in some States pay the cost of courses undertaken by selected teachers.

Status of teachers. Most teachers in government schools are permanent public servants and have security of tenure, superannuation rights, and the right of appeal in matters of promotion. The centralised education systems and the general policy of providing fully trained teachers for both city and country areas mean that teachers are subject to transfer to any part of the State in which they serve.

Training of technical teachers

To preserve links with industry and trade practice, schemes have been developed for the recruitment of specialist tradesmen as teachers and for their training in educational method and teaching techniques. In Victoria, the Technical Teachers College provides training for students with appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales, technical college lecturers and tradesmen-teachers receive an in-service course of teacher training in general education theory and teaching method, while correspondence courses and visiting lecturers assist the newly appointed tradesman-teacher in country colleges. Variations in this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teachers' certificates from teachers colleges.

Training of non-government school teachers

Teachers for non-government schools receive their training in a number of ways. The Roman Catholic Church staffs both its primary and secondary schools as far as possible with members of religious orders. In recent years there has been an increase in the number of lay teachers being employed in Catholic schools, and training of students to become lay primary teachers has been instituted.

Other non-government schools tend to recruit their staff from teachers who have already obtained qualifications in Australia or overseas. In New South Wales and Victoria, non-government school authorities offer courses designed specially for teachers in their schools. Non-government schools also recruit university graduates, who are then given professional guidance by senior members of the school staff. Private students may enrol at government teachers colleges on payment of a fee, but the number of places available is limited. The Commonwealth Government provides financial assistance to the States for approved building projects provided that the colleges admit a number of private students. Some teachers destined for non-government schools train in this way.

The following table shows, for non-government teachers colleges, the number of students enrolled, and the number in the final year of their courses.

NON-GOVERNMENT TEACHERS COLLEGES: ENROLMENTS(*a*), AUSTRALIA, 1969

	Enrolments			*Students in final year of course*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
For primary teaching . .	242	1,067	1,309	81	452	533
For secondary teaching . .	152	123	275	25	27	52
Total	*394*	*1,190*	*1,584*	*106*	*479*	*585*

(*a*) These figures include students taking university degree courses whether instruction is given at the university or the college. They exclude students at kindergarten teachers colleges.

During vacations many non-government teachers attend in-service training courses organised by education departments. In recent years vacation courses have been provided by bodies other than education departments for teachers from both government and non-government schools. For example, an independent body, the Science Foundation for Physics within the University of Sydney, has provided such courses for teachers of science in secondary schools in New South Wales.

Kindergarten teachers colleges

The kindergarten unions, which are non-government organisations, have established colleges providing three-year courses in all States except Tasmania, where an infant and pre-school course is provided by the Hobart Teachers College. The minimum entrance age is usually seventeen years and applicants with matriculation status are preferred. In New South Wales, the Sydney Day Nursery and Nursery Schools Association maintains a training college which provides a course for pre-school and kindergarten teachers. These colleges provide full-time diploma courses which are similar in content and standards. Teachers are trained for work with children between the ages of two and seven years. The Melbourne Kindergarten Teachers College offers a one year full-time post-diploma course of advanced studies for teachers holding recognised qualifications and having a minimum of four years teaching experience.

In 1969 there were 870 students enrolled for diploma courses at kindergarten teachers colleges, of whom 210 were in their final year. In addition there were 7 students enrolled in a one-year post-diploma course for qualified kindergarten teachers. There are no male students enrolled at kindergarten teachers colleges.

The Commonwealth Government provides financial assistance for pre-school teachers colleges. For details, *see* page 664.

Technical education

Australian technical colleges offer training in all the major industrial skills and in a wide variety of commercial, artistic and domestic occupations. The main types of courses are described in Year Book No. 55, pages 498 and 499.

Technical colleges in Queensland, South Australia, Western Australia, and Tasmania are administered by branches of the State education departments. In Western Australia and South Australia, the Institutes of Technology function as autonomous institutions. New South Wales has a separate State Department of Technical Education. In Victoria there is a dual system with a number of the older colleges controlled by their own 'councils' in addition to government-controlled colleges administered by the Technical Education Branch of the Education Department. The council-controlled colleges receive government grants-in-aid. The diploma awarding schools or sections of technical institutions are in process of being separated from the trade, certificate and other sections of technical education, and of being developed as colleges of advanced education, and are now receiving Commonwealth financial assistance.

The numbers of colleges, teachers and enrolments in each State and Territory during 1968, and for Australia for the period 1964 to 1968 are given in the following table. The statistics include senior technical schools and colleges, institutes of technology and colleges of advanced education providing technical education, and their teachers and students at all levels. Whilst details for colleges of advanced education are included, the basis of collection differs from that used for advanced level courses, statistics of which are given on pages 651–2.

TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS STATES AND TERRITORIES, 1968

		Teachers			*Students enrolled*		
	Colleges	*Full-time*	*Part-time*	*Total*	*Males*	*Females*	*Persons*
New South Wales(*a*)(*b*)(*c*)(*d*)	57	1,843	3,780	5,623	109,839	51,225	161,064
Victoria(*e*)	83	4,967	3,016	7,983	n.a.	n.a.	85,413
Queensland(*d*)	18	560	972	1,532	24,025	2,637	26,662
South Australia(*d*)	25	704	1,295	1,999	n.a.	n.a.	37,593
Western Australia(*d*)(*f*)	38	780	1,835	2,615	41,596	26,015	67,611
Tasmania	9	181	711	892	5,862	2,194	8,056
Northern Territory	2	6	137	143	1,042	1,383	2,425
Australia—1968	**232**	**9,041**	**11,746**	**20,787**	**n.a.**	**n.a.**	**388,824**
1967	230	8,071	11,144	19,215	n.a.	n.a.	376,915
1966	226	7,475	10,836	18,311	n.a.	n.a.	375,003
1965	222	6,774	9,974	16,748	n.a.	n.a.	360,755
1964	211	6,165	9,598	15,763	n.a.	n.a.	340,080

(*a*) Students enrolled represent gross enrolments, no allowance having been made for students enrolled in more than one course. (*b*) Includes Australian Capital Territory. Gross enrolments at Canberra Technical College were 5,956 in 1968; 5,578 in 1967; 4,855 in 1966; 4,267 in 1965; and 3,551 in 1964. (*c*) Figures include teachers and students at technical colleges and other centres, such as high school classrooms, in which technical classes are conducted. (*d*) Includes correspondence course teachers and students. (*e*) Teachers include those at both senior and junior technical colleges. (*f*) Teachers represent number of teaching positions.

Agricultural and forestry education

Agricultural faculties have been established in universities in all States. Seven provide degree courses in agricultural science, one in rural science, one in wool and pastoral sciences, one in agricultural economics and three in veterinary science. Besides undergraduate courses, these faculties collectively provide a wide range of post-graduate diploma courses as well as facilities for training for higher degrees and doctorates.

At least one government agricultural college in each State, except Tasmania, has been or is being developed as a college of advanced education. The primary role of these colleges is now to train students for professional extension work or technology roles in the agricultural services. Other colleges which aim to teach the principles and practices of agriculture and farm management to those intending to take up farming as a career, are being developed in New South Wales, Queensland, and Victoria. There is no agricultural college in Tasmania. With the transfer of the C. B. Alexander Presbyterian Agricultural College to the New South Wales government agricultural college system, the Marcus Oldham farm management college in Victoria is the only remaining independent institution of this type in Australia.

Training in forestry is provided by a Department of Forestry in the Faculty of Science within the Australian National University's School of General Studies. A four-year degree course is offered. At the Victorian School of Forestry, Creswick, a three-year diploma course can be taken.

State expenditure on agricultural and forestry education from Consolidated Revenue and certain special funds is shown on page 673.

Other education

Conservatoria of music, schools of art, etc.

In addition to the conservatoria of music which are attached to universities or which constitute separate colleges of advanced education, there is the Canberra School of Music which offers a four year full-time diploma course of theoretical and practical studies. Some schools of art have been developed into colleges of advanced education or included as departments in such colleges, and offer courses in printing, sculpture, and design as well as in basic art.

At the end of 1969, the New South Wales Government set up an expert committee to carry out a comprehensive survey of art and design education in the State. The Committee has been asked to determine whether to set up a special college of advanced education for fine arts and design, or whether to arrange for these to be taught in other institutions in close relationship to other disciplines such as architecture and engineering.

In 1969 a joint committee, comprising members from the Melbourne University Conservatorium of Music and the Victoria Institute of Colleges, was formed to make recommendations on future developments in music teaching.

A Concert Diploma in Music course of three years full-time or six years part-time study commenced at the Queensland Conservatorium in 1969. Also beginning in 1969 were courses by fellowship for music teachers in Queensland schools.

Educational training in the defence services

Each of the three defence services maintains institutions for the training of officers. The Royal Australian Naval College, Jervis Bay, Australian Capital Territory, became an affiliated college of the University of New South Wales in 1968. Selected matriculated cadets complete first year degree studies in science or engineering at the College, and subsequent years of degree studies at the University. The Royal Miltary College, Duntroon, Australian Capital Territory, became a college of the University of New South Wales in 1968. The Royal Australian Air Force Academy, Point Cook, Victoria, has evolved from the Royal Australian Air Force College, which was established in 1948 as a tertiary training centre to provide a professional education for permanent officers of the Air Force. It is affiliated with the University of Melbourne and has adopted that University's Bachelor of Science course. The Academy is also permitted to present students for higher degrees in science and the degree of Doctor of Philosophy. Students may also proceed to the University of Sydney to take a degree in aeronautical engineering. The Australian Staff College and the Royal Australian Air Force Staff College provide one year courses for officers. Educational training is also provided in the apprentice training schools conducted by each of the Defence Services, and in the Royal Australian Navy School for Junior Recruits. The Royal Australian Air Force School of Languages, Point Cook, Victoria, conducts courses in French and Asian languages. In 1969 there were 43 students enrolled, of whom 7 were Royal Australian Air Force personnel.

The following table shows the number of officers, officer cadets and other ranks enrolled in the training establishments mentioned above.

SERVICE ESTABLISHMENTS PROVIDING EDUCATIONAL TRAINING AUSTRALIA, 1969

Establishment	*Enrolments*	*New entrants during year*	*Number completing course during year*
OFFICERS AND OFFICER CADETS (*a*)			
Staff Colleges—			
Australian Staff College . . .	70	70	70
Royal Australian Air Force Staff College	30	30	24
Officer cadets—			
Royal Australian Navy—			
Royal Naval College . . .	130	76	20
H.M.A.S. *Leeuwin*	2	. .	2
Royal Military College . . .	252	98	54
Royal Australian Air Force—			
R.A.A.F. Academy. . . .	86	33	14
R.A.A.F. Diploma Squadron . .	166	61	12
APPRENTICES AND OTHER RECRUITS (*b*)			
Royal Australian Navy—			
Naval artificer apprentices . . .	689	217	154
Junior recruits	630	630	578
Topmen scheme	78	78	67
Army Apprentice School . . .	161	n.a.	77
Royal Australian Air Force—			
School of Technical Training . .	295	158	152
School of Radio	84	58	44

(*a*) Includes 141 cadets enrolled for university courses, 2 enrolled at teachers college, and 166 enrolled at an institute of technology. (*b*) Includes 90 apprentices enrolled at a technical college or institute of technology.

The Australian School of Pacific Administration

The Australian School of Pacific Administration, controlled by the Department of Territories, trains students in the various aspects of service and administration in Commonwealth Territories, including teaching. In 1969, the number of students training as teachers was 26 males and 19 females in primary teaching courses, and 67 males and 34 females in secondary teaching courses. Eight of these students were also enrolled for a university degree course.

Australian Administrative Staff College

Opened in 1957, the Australian Administrative Staff College is a private organisation working in close co-operation with government and other public bodies, the armed services, and the trade union movement. It was founded, and is owned, by a large group of leading Australian companies and has its permanent premises at Mount Eliza, near Melbourne. The College conducts residential courses for administrators to further the study of the problems which arise in managerial work.

Technical training by government departments

Although most needs of departments for trained staff are met by apprenticeship schemes and other technical college courses and by the universities, some departments provide training which is not available elsewhere. The most important field for which such training is provided is the training of telephone, telegraph, radio, and television technicians by the Postmaster-General's Department.

Migrant education

The Department of Immigration is responsible for the teaching of English to migrants as part of its assimilation programme. Advice about migrant education and teaching materials are provided by the Department of Education and Science, and the courses are administered by the State education departments.

The Australian Government allocates funds to the Intergovernmental Committee for European Migration which, in Greece, Italy, Germany, and Austria, provides class and correspondence instruction for intending migrants to Australia. Courses are also being organised in Turkey and a recorded Australian course is in use in Finland. The governments of Holland and Belgium assist with courses conducted in these countries. Many migrants, however, receive their first instruction in English from shipboard education officers.

The Department of Education and Science, the State education departments, and the Australian Broadcasting Commission co-operate in producing a radio/correspondence course in English. Films of common situations with a graded English dialogue produced by the British Broadcasting Commission are shown on Australian television.

Accelerated English courses for migrants with a professional background were introduced in 1969. A special course 'English for Migrants in Industry' has been prepared for use in factories and other places of employment.

In 1969, about 14,000 New Australians were enrolled in continuation classes, and 7,000 were taking part in the various radio and correspondence courses.

Adult education

The term 'adult education' as used in Australia refers mainly to non-vocational educational and cultural activities for adults. While the nature of the recognised adult education authorities varies from State to State, their major activities have many common features. Regular courses of lectures are organised on such topics as literature, music, drama, international affairs, languages, and crafts. Some authorities also organise discussion groups, festivals and summer schools, and provide special services for groups in remote areas. In 1960 an Australian Association of Adult Education was formed, and its first annual conference was held in Adelaide in 1961. The Association handles matters pertaining to adult education at a national level and arranges liaison with similar bodies in other countries.

One of the first bodies active in the field of adult education in Australia was the Workers' Educational Association, which formed associations in all States in 1913. Its aims were to bring the universities into closer relationship with the community in general and to provide for higher education in civic and cultural subjects. These associations have been superseded by Adult Education Boards or Councils set up by the State governments in Victoria, Queensland, and Tasmania, and by the university in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the governments concerned.

There are throughout Australia various other organisations which are active in the field of adult education. The World Education Fellowship, for example (*see* below), since its inception in Australia has been interested in adult education.

The organisation of adult education and some of the activities in each State are described in Year Book No. 53, pages 625 to 627.

Overseas students

Information about overseas students in Australia is available from three statistical series. The Department of Education and Science compiles statistics of *government sponsored overseas students* in Australia. The statistics of government sponsored students in institutions of higher learning are compiled from records held by that Department; those of other government sponsored students are estimates from information held by the Department of External Affairs. In June 1969, there were 1,409 government sponsored overseas students in institutions of higher learning, and 624 other government sponsored students. These figures exclude some personnel of overseas armed forces taking courses at Australian Defence Colleges. Altogether, there were just over 2,000 government sponsored overseas students in Australia in 1969. Students under the Colombo Plan Technical Co-operation Scheme numbered 1,478. The largest numbers of government sponsored students came from Malaysia, Indonesia, Singapore, and Thailand.

The Department of Immigration prepares statistics of overseas students in Australia who have been admitted under the *Private Overseas Student Programme*. In 1969, there were 9,550 students undertaking courses or training in Australia under the Programme; 4,524 from Malaysia, 2,007 from Hong Kong, and 1,019 from Singapore. Courses chosen were mainly in engineering and building (1,657), economics and commerce (1,350), medical and para-medical (1,294) and general and school courses (2,484).

A survey of *overseas students enrolled for advanced level courses* in Australian education institutions is conducted annually. The institutions reported some 7,500 enrolments in 1969, about 6,000 at universities, 1,200 at colleges of advanced education and some 300 at other institutions.

Organisations associated with education

Australian Council for Educational Research

The Australian Council for Educational Research, a non-governmental body, is engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardises and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State governments give substantial financial support.

World Education Fellowship

The World Education Fellowship is a world organisation of parents, educators and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published twice a year.

Australian College of Education

The Australian College of Education was formed in 1959. Its aims are to bring together leading teachers and administrators in every field of education, to raise the standard of the profession of education in Australia, to establish and proclaim fundamental educational values, and to recognise outstanding contributions to educational practice. Chapters of the College have been set up in all States, and several of the addresses and papers delivered at meetings of the College have been issued in published form.

Commonwealth activities in education

Fields of activity

Although education is primarily the responsibility of the States, the Commonwealth has instituted a number of measures of direct assistance to educational institutions and to students. It is responsible for public education in its own Territories and is engaged in educational activities incidental to its responsibilities in such areas as defence, external relations, immigration, and social services. Education in Commonwealth Territories is outlined in Chapter 29, The Territories of Australia; various schools and colleges for the Defence Services are referred to on page 657, and other activities which may be considered broadly as educational are referred to in the section on Broadcasting and Television in Chapter 12, Transport, Communication and Travel. Details of Commonwealth expenditure on education are provided on pages 668–72.

Department of Education and Science

The Commonwealth Department of Education and Science was created in December 1966. The Department, which absorbed the former Education Division of the Prime Minister's Department including the Commonwealth Office of Education, and subsequently, in 1968, the Education Branch of the Department of the Interior, is concerned with direct grants for educational purposes, e.g. for universities, colleges of advanced education, school libraries, technical schools, and science buildings, as well as with grants for building teachers and pre-school teachers colleges. It is responsible for assistance to students for the various Commonwealth scholarship schemes, for the scheme of Queen Elizabeth II Fellowships, and for special scholarships offered by overseas countries for Australians. Among the Department's other responsibilities are matters in the field of international relations in education, including Unesco and Commonwealth Co-operation in Education, and liaison with State and other education bodies throughout Australia. The Department provides professional advice on education to other Commonwealth departments and authorities. It administers grants to such bodies as the Academy of Science, the Humanities Research Council, the Social Sciences Research Council and the Institute of Aboriginal Studies, and is responsible for grants for scientific research such as those recommended by the Australian Research Grants Committee. It administers educational services in the Australian Capital Territory.

The *Australian Universities Commission* and the *Commonwealth Advisory Committee on Advanced Education* are responsible to the Minister for Education and Science. The Minister is also responsible for the *Commonwealth Scientific and Industrial Research Organization*, the *National Standards Commission*, the *Australian National University*, the *Institute of Aboriginal Studies*, and the *College of Advanced Education* in Canberra. The Prime Minister's Department continues to be responsible for the National Library and for art, literature and other cultural activities in which the Commonwealth is interested.

Commonwealth Scholarships Board

This Board, under its former title of the Universities Commission, was established by the *Education Act* 1945. Prior to 1945 the Commission had functioned under wartime National Security Regulations. The Board consists of a chairman and three other members. The main responsibility of the Board, at present, is advising the Government on the policy and administration of Commonwealth university and advanced education scholarships and Commonwealth post-graduate awards. For a brief description of each type of award, see page 665.

Advisory bodies

The Commonwealth Government has established various advisory bodies whose fields of concern relate to matters of education. Already mentioned above is the Australian Universities Commission, which advises the Commonwealth Government on university development. The Commonwealth Advisory Committee on Advanced Education advises the Minister on the balanced development of tertiary education outside universities. Within financial limits nominated by the Minister, the Committee recommends grants to the States for colleges of advanced education and directs grants to any such colleges established by the Commonwealth. The Australian Research Grants Committee advises the Minister on the merit of applications for research grants from individuals and research teams, and suggests the allocation of funds. The Queen Elizabeth II Fellowships Committee advises the Minister on the merit of applicants for these fellowships, which are awarded for post-doctoral study in the physical and biological sciences, and advises generally on the administration of this scheme of fellowships.

In 1969 the triennial reports of the Australian Universities Commission, the Commonwealth Advisory Committee on Advanced Education, and the Australian Research Grants Committee were presented to Parliament. For details of the financial programmes, *see* pages 662–3 for universities, page 663 for colleges of advanced education, and page 661 for research.

International relations

An account of the relations and exchanges in the field of education before 1969 between Australia and other countries can be found in Year Book No. 55, pages 526–527.

In 1969, delegates from Australia participated in a number of conferences in Paris organised in connection with the International Hydrological Decade including one in mid-December intended to provide assessment of the IHD programme to the present and to determine guidelines for the second half of the Decade. Delegates were also sent to the conference sponsored by Unesco—Symposium on the University of Tomorrow (Osaka).

The Department of Education and Science arranged for several specialists sponsored by Unesco to visit Australia and to confer with and advise Australian experts. They attended the Australian Unesco Seminar on Support for the Performing Arts (Canberra), the Australian Unesco Seminar on Music in Tertiary Education (Queensland), the Selection Committee for the Post-graduate Training Course in Research Techniques in Chemistry at the University of New South Wales, and they participated in discussions with Australian hydrologists and scientists in related fields (Sydney, Canberra and Melbourne).

Under the programme of Commonwealth Co-operation in Education special teaching courses were arranged in 1969 by the Department of Education and Science. A two-year course in infant teaching methods was begun by the New South Wales Department of Education. The Western Australian Education Department conducted a one-year refresher course in primary teaching methods, which was attended by teachers from Zambia, Western Samoa, New Hebrides and the British Solomon Islands. A short course for school inspectors was again provided by the South Australian Education Department. Inspectors and teachers from Nigeria, Sierra Leone and Jamaica attended the course. The University of Queensland conducted a one-year course leading to a Certificate of Education for Overseas Teachers. During the year arrangements were made for a mathematics workshop for overseas teachers to be conducted by Macquarie University in 1970. The provision of this training follows a Commonwealth Conference on Mathematics in Schools which was held at Trinidad in September 1968.

Although arrangements for educational assistance for the award of scholarships are made on a bilateral basis between the relevant Commonwealth countries, a Commonwealth Education Liaison Committee has been established in London to act on matters of common interest. The Department of Education and Science liaises with the Australian representative of this Committee.

Commonwealth grants for education purposes

Grants for research purposes. The Second Report of the Australian Universities Commission recommended that during the calendar years 1964, 1965 and 1966 a total of $10 million should be provided for universities to support research activities at the post-graduate level, half the sum to be provided by the Commonwealth and half by the States. The advisory committee entrusted with the task of advising on the allocation for particular research projects, the Australian Research Grants Committee, was established in April–May 1965 under the chairmanship of Professor R. N. Robertson. Its immediate function was to advise the Commonwealth on the distribution of the $4 million for the year 1966.

At the beginning of 1967 it was decided that the Committee would continue to function through the 1967–1969 triennium, and was asked to recommend to the Commonwealth Government the distribution of $9 million for the triennium, to be provided solely by the Commonwealth. Details of the distribution of this money may be obtained from the *Australian Research Grants Committee, Report* 1967–69. An amount of $12.5 million is being provided by the Commonwealth for the triennium 1970–72. Details of grants for 1970 are available in *Grants Approved for* 1970 published by the Committee. For details of Commonwealth expenditure under the scheme in 1968-69 see page 671.

Grants for universities. Australian universities depend greatly on government grants for their income. In 1968 income from other than Commonwealth and State grants amounted to just over one-fifth of the total income. Commonwealth grants to the States for universities are made on the recommendation of the Australian Universities Commission which was established by the Commonwealth Government under the *Australian Universities Commission Act* 1959. The principal function of the Commission is to advise the Minister for Education and Science on financial assistance for the maintenance and balanced development of Australian universities. The Commission commenced its work in July, 1959. An historical summary of the financial assistance provided for universities by the Commonwealth Government in the past is given in Year Book No. 55, pages 515–18.

The Fourth Report of the Australian Universities Commission was published in 1969. It recommended Commonwealth grants to the States for State universities of over $225 million for the triennium 1970–72. In addition, it recommended grants totalling $88 million for the Australian National University. These recommendations were accepted by the Government and the grants to State universities were given effect in the *States Grants* (*Universities*) *Act* 1969. A summary of the maximum grants supported by the Commonwealth for all universities for the 1970–72 triennium and for the 1964–66 and 1967–69 triennia is shown in the following tables and details of Commonwealth payments for universities are given on pages 668–9 and 671.

ALL UNIVERSITIES: SUMMARY OF MAXIMUM COMMONWEALTH GRANTS FOR THE 1964–66, 1967–69 AND 1970–72 TRIENNIA

($'000)

Type of grant	*1964–66*	*1967–69*	*1970–72*
Recurrent grants—			
General	120,833	174,970	231,842
Teaching hospitals	369	809	1,006
Student residences	1,427	1,938	2,541
Total recurrent grants	*122,629*	*177,717*	*235,389*
Capital grants—			
Building projects	40,231	50,683	58,896
Teaching hospitals	3,112	4,927	2,560
Student residences	9,244	12,693	11,967
Computers	1,098	985	1,022
Capital equipment	..	..	1,025
Total capital grants	*53,685*	*69,288*	*75,470*
Research	6,000	3,000	4,000
Total Commonwealth grants for all universities	**182,314**	**250,005**	**314,859**

The Commonwealth makes the above grants available to the States on the following bases.

Grant	*Basis*
Recurrent—	
University recurrent expenditure	$1 Commonwealth for every $1.85 of income from fees and State grants
Teaching hospitals recurrent expenditure	$1 Commonwealth for every $1.85 of State grants
Teaching and administrative costs of halls of residence and residential colleges	No matching grant required
Capital—	
Building projects in universities and teaching hospitals	$1 Commonwealth for every $1 of State grants
Building projects at residential colleges and halls of residence	$1 Commonwealth for every $1 of college funds and/or State grants
Research—	
Research and research training	$1 Commonwealth for every $1 of State grants

Details of the maximum Commonwealth grants to each State for 1970–72 triennium are shown in the following table.

MAXIMUM COMMONWEALTH GRANTS TO UNIVERSITIES FOR THE 1970-72 TRIENNIUM
($'000)

Type of grant	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Recurrent grants—								
General	63,652	43,179	20,184	15,506	10,547	4,814	(*a*)73,960	231,842
Teaching hospitals	378	352	134	64	53	25	. .	1,006
Student residences	791	649	444	121	162	133	241	2,541
Total recurrent grants	*64,821*	*44,180*	*20,762*	*15,691*	*10,762*	*4,972*	*74,201*	*235,389*
Capital grants—								
Building projects	18,945	14,377	6,105	4,633	2,563	1,267	11,006	58,896
Teaching hospitals	883	583	310	23	761	. .	. .	2,560
Student residences	3,777	3,013	807	675	355	542	2,798	11,697
Computers	450	. .	225	113	234	. .	. .	1,022
Capital equipment	405	237	135	110	63	25	50	1,025
Total capital grants	*24,459*	*18,210*	*7,582*	*5,554*	*3,976*	*1,834*	*13,854*	*75,470*
Research	1,470	1,097	463	560	285	125	. .	4,000
Total grants	**90,750**	**63,487**	**28,807**	**21,805**	**15,023**	**6,931**	**88,055**	**314,859**

(*a*) Includes special grants for research and research training.

Grants for colleges of advanced education. The Commonwealth continues to be advised by the Commonwealth Advisory Committee on Advanced Education. The following tables provide details of grants for the 1967–69 and 1970–72 triennia.

COLLEGES OF ADVANCED EDUCATION SUMMARY OF MAXIMUM COMMONWEALTH GRANTS FOR THE 1967-69 AND 1970-72 TRIENNIA
($ million)

Type of grant	*1967–69*	*1970–72*
Recurrent grants	20.88	48.41
Capital grants	26.26	57.37
Special grants for libraries	0.50	0.50
Provision for research	0.25	0.25
Total	**47.89**	**106.53**

The Commonwealth makes the above grants available to the States on the following bases.

Grant	*Basis*
Recurrent	$1 Commonwealth for every $1.85 of income from fees and State grants
Capital	$1 Commonwealth for every $1 State
Libraries	No matching grant required
Research	No matching grant required

COLLEGES OF ADVANCED EDUCATION MAXIMUM COMMONWEALTH GRANTS FOR THE 1970-72 TRIENNIUM
($'000)

Type of grant	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Recurrent grants	8,263	18,246	4,681	4,123	6,667	1,228	(*a*)5,200	48,408
Capital grants	15,394	15,000	6,400	5,078	4,250	3,250	8,000	57,372
Total	**23,657**	**33,246**	**11,081**	**9,201**	**10,917**	**4,478**	**13,200**	**105,780**

(*a*) Less fees.

Grants for technical colleges. The scheme began in July 1964 and between that date and June 1969, the amount made available totalled $47,587,200. Funds are now being provided at the rate of $10 million per year and, since the introduction of the Advanced Education Programme, are being devoted almost entirely to apprentice and technical training. The maximum amounts available to the States during the triennium ending 30 June 1971 are shown in the following table. For details of payments made under the Act during 1968–69, *see* page 671.

TECHNICAL TRAINING: MAXIMUM COMMONWEALTH GRANTS FOR THE TRIENNIUM ENDING 30 JUNE 1971

($'000)

N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*All States*
11,127	8,462	4,369	2,868	2,198	976	30,000

Grants for teachers colleges. The Commonwealth Government reviewed its policy on teachers colleges in 1969 and decided that the unmatched capital grants made to the States should be increased to $30 million in the next triennium as against $24 million in the present triennium 1968–70. The maximum amounts available to the States during the triennium ending 30 June 1970 are shown in the following table. For details of payments made under the Act during 1968–69, *see* page 671.

TEACHERS COLLEGES: MAXIMUM COMMONWEALTH GRANTS FOR THE TRIENNIUM ENDING 30 JUNE 1970

($'000)

N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
7,500	5,350	3,750	3,200	2,700	1,500	24,000

The Commonwealth also decided to support the introduction of teacher education into the colleges of advanced education and to provide funds for this purpose under the normal sharing arrangements for expenditure on colleges of advanced education in the States.

In addition the Commonwealth Government has introduced a new programme to assist the training of pre-school teachers. Legislation enacted in December 1968 provided $2 million for pre-school teacher training facilities during the period 2 December 1968 to 30 June 1971, that is planned to double the existing capacity of training colleges in the States. For details of payments made under the Act during 1968–69, *see* page 671. Pre-school teacher training is a function of the State Education Department in Tasmania and in other States it is administered by private organisations.

Per capita grants to independent schools. A provision announced by the Commonwealth Government in 1969 was that of annual per capita grants to independent schools within the States. Payments will be made to these schools at the rate of $35 for each primary student and $50 for each secondary student, and will commence in 1970. The grants are intended to assist independent schools with their running costs.

Grants for science laboratories. From July 1968 to June 1971, $37.7 million will be distributed to the States in unmatched grants for science buildings and equipment in government and non-government secondary schools. Grants to State schools have been provided on the basis of lists of projects agreed to between the Commonwealth and State Ministers of Education, whilst grants to independent schools are approved by the Commonwealth Minister for Education and Science on the basis of reports by an Advisory Committee on Standards for Science Facilities in Independent Schools, and State advisory committees representing independent schools. Non-government schools in the Australian Capital Territory and the Northern Territory will receive grants for science facilities and for school libraries in conjunction with the capital aid scheme under which the Commonwealth Government meets interest charges on loans and also repays, in equal annual instalments, the costs for school building projects. For details of payments made under the Act during 1968–69, *see* page 671.

Grants for library facilities in secondary schools. During the three-year period January 1969 to December 1971, the Commonwealth is distributing $27 million for the development of library facilities (erection, alteration or extension of library buildings and provision of furniture, equipment, books, and library materials) in government and independent secondary schools in the States. Besides the Commonwealth Secondary Schools Libraries Committee, the Commonwealth, as with the science facilities scheme, has the advice of two committees in each State, one representative of Roman Catholic secondary schools and the other representative of other non-government secondary schools. The maximum amounts available to the States during the triennium are shown below. For details of payments made under the Act during 1968–69, *see* page 671.

SECONDARY SCHOOL LIBRARIES: MAXIMUM COMMONWEALTH GRANTS FOR THE TRIENNIUM ENDING 31 DECEMBER 1971

($'000)

N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*All States*
9,984	7,591	3,945	2,576	2,032	873	27,000

As a contribution towards meeting the urgent need for more trained librarians to staff the new and existing libraries $50,000 was made available during 1968–69. The funds enabled the Commonwealth to sponsor several short specialist courses in school librarianship in conjunction with State education departments and independent school authorities. The courses were available to teachers from government and independent schools. Eight courses, which 373 persons attended, were held during 1969. Further funds were made available during 1969–70.

Assistance to students

Commonwealth scholarships. The Commonwealth Government provides financial assistance to students through five major scholarship schemes. A total of 27,150 new awards were made available in 1970 under these schemes.

Under the Commonwealth Post-graduate Awards Scheme 650 new awards were made available in 1970 for students taking courses leading to higher degrees at Australian universities. The awards are for full-time study and may be renewed annually up to a maximum period of four years. The awards carry a stipend of $2,350 per annum and certain other allowances.

The Commonwealth University Scholarship Scheme made provision for 11,500 scholarships in 1970. Of these 7,500 are open entrance scholarships which are allocated amongst the States in proportion to population and are awarded on the basis of results achieved in Australian matriculation examinations. A small quota of open entrance awards is set aside as Mature Age Scholarships for students who have reached the age of thirty years. The remaining 4,000 scholarships are Later Year Awards for students who have already completed one or more years of a university course. Scholarship holders have their fees paid and may receive a living allowance subject to a means test. The maximum rates of living allowances are $1,000 per annum in the case of scholars living away from their parents and $620 for scholars living with parents.

The Commonwealth Advanced Education Scholarship Scheme made provision for 2,500 scholarships in 1970 for students taking approved courses of advanced education at institutions other than universities. Conditions for selection and benefits are similar to those for university scholarships.

In 1964 the Commonwealth Government also introduced the Commonwealth Technical Scholarship Scheme under which it makes available 2,500 new awards annually to assist students to take approved technical courses. Most of these courses are at certificate level in technical colleges. Full-time technical scholarship holders receive the same benefits as Commonwealth secondary scholars. The benefits paid each year to part-time technical scholars are an allowance of $100, free of means test, and reimbursement of compulsory fees up to a maximum of $100.

Under the Commonwealth Secondary Scholarship Scheme students compete each year for 10,000 scholarships to assist them during the final two years at secondary school. Secondary scholarship benefits are free of means test and comprise a yearly living allowance of $200, a textbook and equipment allowance of $50 per annum and reimbursement of compulsory fees up to a maximum of $150 per annum.

COMMONWEALTH SCHOLARSHIPS: NUMBERS OF SCHOLARS IN TRAINING, 1969

Type of award	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.(b)*	*W.A.*	*Tas.*	*Aust.*
Post-graduate—							
Granted—							
In 1969	294	166	77	69	30	14	650
Prior to 1969	471	275	119	118	54	25	1,062
Total	*765*	*441*	*196*	*187*	*84*	*39*	*1,712*
University scholarship—							
Granted—							
In 1969	3,550	2,434	1,347	860	547	210	8,948
Prior to 1969	6,314	5,929	2,620	1,890	1,202	417	18,372
Total	*9,864*	*8,363*	*3,967*	*2,750*	*1,749*	*627*	*27,320*
Advanced education scholarship—							
Granted—							
In 1969	376	585	256	152	140	32	1,541
Prior to 1969	312	603	221	114	144	74	1,468
Total	*688*	*1,188*	*477*	*266*	*284*	*106*	*3,009*
Technical scholarship—							
Granted—							
In 1969	917	693	334	248	190	68	2,450
Prior to 1969	888	606	247	192	76	69	2,078
Total	*1,805*	*1,299*	*581*	*440*	*266*	*137*	*4,528*
Secondary scholarship—							
Granted—							
In 1969	3,772	2,693	1,407	1,002	728	308	9,910
Prior to 1969	3,715	2,685	1,402	907	707	236	9,652
Total	*7,487*	*5,378*	*2,809*	*1,909*	*1,435*	*544*	*19,562*

(*a*) Includes the Australian Capital Territory. (*b*) Includes the Northern Territory.

Australian Agricultural Council Scholarships. At the request of the Australian Agricultural Council the Department of Primary Industry makes available from the Commonwealth Extension Services Grant funds 12 scholarships annually (two in each State) to students in Australia who have qualified for a Commonwealth University scholarship and who wish to proceed to an approved course of study leading to a degree in Agricultural Science, Agricultural Engineering, Agricultural Economics, Rural Science or Veterinary Science. The purpose of the awards is to foster interest in agriculture and related fields of study.

As at 30 June 1970, there were 50 students holding Agricultural Council scholarships in Australia.

Aboriginal study grants. The first awards under the Aboriginal Study Grants Scheme were made in 1969 and the Department of Education and Science co-operates with the Commonwealth Office of Aboriginal Affairs in the administration of this scheme. The grants available to any person of Aboriginal descent, provide a living allowance of $1,100 per annum, and other allowances. Expenditure on the scheme in 1968–69 amounted to $62,177.

Expenditure on education

The first part of this section summarises, on an Australian National Accounts basis, total expenditure on education, while the second and third parts show expenditure on education by the Commonwealth and States respectively.

Summary of expenditure on education

The presentation in the following tables is based on the Australian National Accounts. The figures exclude expenditure on goods and services which do not enter the market, such as education provided in the home, or for which it is not practical to impute a value, such as the unpaid services of some teachers, or certain educational services which cannot be separated readily from other services, such as instruction on the job. Most of the education services provided by public authorities are included. Some education services are provided by trading enterprises, such as business colleges, but it is not possible to provide separate figures of their transactions. Nor is it possible to provide separate figures for the expenditure of non-profit organisations, such as non-government schools. Information for these organisations is insufficient to make direct estimates of the cost value of their services. Their contribution is included as part of personal consumption expenditure on education.

Current and capital transactions are shown separately. Current expenditure by public authorities on goods and services classified to education is measured net of receipts, such as fees. These fees are included in private consumption expenditure. Gross fixed capital expenditure represents the value of new capital assets, such as new buildings and additions to buildings, equipment, etc. While it is possible to show to some extent details of education expenditure incurred by the various public authorities, it is not possible to provide consistent figures in total of expenditure on various types of education. Generally, expenditure on libraries, cultural activities, and the like is excluded from 'education', as are most education services provided in the armed forces, by child welfare institutions, and those provided by governments and private employers for their employees, other than teacher education. Identifiable expenditure on education administration and educational research is, however, included. In many cases strict definitions cannot be applied. Thus it is not possible to differentiate between the components of scholarships which are intended for education fees, textbooks, etc. (clearly education expenditure) and those intended as living allowances. University research cannot be separated from universities expenditure on teaching. With the exception of expenditure on fees, private expenditure on education (such as for books, equipment provided by parents associations, and the like) cannot be identified and is therefore excluded.

ESTIMATES OF EXPENDITURE ON EDUCATION: AUSTRALIA
1964-65 TO 1968-69
($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*p
PUBLIC AUTHORITY SECTOR					
Direct expenditure on goods and services classified to education(*a*)—					
Net current expenditure—					
Commonwealth authorities	17	20	22	27	34
State and local government authorities	458	498	555	623	705
Total net current expenditure	*475*	*518*	*577*	*650*	*739*
Gross fixed capital expenditure—					
Commonwealth authorities	8	8	10	13	13
State and local government authorities	127	155	163	169	191
Total gross fixed capital expenditure	*135*	*164*	*174*	*182*	*204*
Total direct expenditure—					
Commonwealth authorities	25	28	32	40	47
State and local government authorities	585	653	718	792	896
Total, public authority sector	*610*	*682*	*751*	*832*	*943*
PRIVATE SECTOR(*a*)					
Personal consumption expenditure on education	102	110	119	133	145
Gross private fixed capital expenditure on education	26	32	35	31	27
Total, private sector	*128*	*142*	*154*	*164*	*172*
TOTAL EXPENDITURE ON EDUCATION					
Grand total	**738**	**824**	**905**	**996**	**1,115**

(*a*) Transfer payments from the public authority to the private sector for educational purposes are included in private sector expenditure and therefore excluded from the public authority sector expenditure.

Direct expenditure of public authorities excludes government payments to persons and non-profit organisations. Such transfer payments from the public authority to the private sector consist mainly of scholarships to persons and grants to non-government schools. They include all scholarship payments, whether or not they are intended towards the payment of fees or towards living expenses. Total government expenditure on education, including such transfer payments, is set out in the following table.

ESTIMATES OF PUBLIC AUTHORITY EXPENDITURE ON EDUCATION: AUSTRALIA
1964-65 TO 1968-69
($ million)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69p*
Direct expenditure of public authorities	610	682	751	832	943
Transfer payments to the private sector—					
Cash benefits—					
From Commonwealth authorities	16	21	27	28	33
From State and local government authorities	8	13	14	18	21
Grants towards private capital expenditure—					
From Commonwealth authorities	..	..	..	1	1
From State and local government authorities	3	3	3	7	7
Total transfer payments	*27*	*37*	*44*	*54*	*62*
Total expenditure on education by public authority sector	**637**	**719**	**795**	**887**	**1,006**

Because of conceptual and accounting differences the figures above are not strictly comparable with figures of State expenditure on schools, technical education, etc., Commonwealth expenditure on education, and university expenditure shown in other sections of this chapter.

Commonwealth expenditure on education

An analysis of Commonwealth expenditure is provided in the following table. Current direct expenditure includes the cost of the Department of Education and Science, the Australian Universities Commission and other administrative expenditure, expenditure by the Australian National University, and the provision of education services in the Australian Capital Territory and the Northern Territory (including re-imbursements to States for educational services in these Territories, such amounts being excluded from State expenditure). This expenditure is net of receipts in the form of fees, etc. Capital expenditure relates mainly to expenditure on new buildings and equipment by the Australian National University and for schools, etc. in the Northern Territory and the Australian Capital Territory. The table is based on an analysis by major function of all Commonwealth expenditure. The figures exclude expenditure on certain items which are related to education, such as payments for the Australian Broadcasting Commission education series, Australian Agricultural Council scholarships, the education of Aborigines in the Northern Territory, Aboriginal Study Grants, and the Office of Aboriginal Affairs, which are classified to other functional headings. The amounts involved in the above-mentioned items were: 1964–65, $775,000; 1965–66, $866,000; 1966–67, $1,100,000; 1967–68, $3,167,000; 1968-69, $3,819,000. Commonwealth figures shown in the tables above differ from those shown in the following table because: education grants to the States by the Commonwealth (mainly for universities, science facilities in State schools, technical schools, and colleges of advanced education) are included in the following table, while expenditure by the States from these education grants is included in the State education expenditure figures on pages 673–4, grants by the Commonwealth Government to the Australian National University and the Canberra College of Advanced Education are shown on page 663, while only the actual net expenditure by these institutions is included in Commonwealth direct expenditure on page 669.

COMMONWEALTH GOVERNMENT EXPENDITURE ON EDUCATION, 1964-65 TO 1968-69
($'000)

Items of expenditure	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Expenditure on goods and services—					
Department of Education and Science—					
Current	1,009	1,218	1,832	2,720	3,627
Capital	..	..	9	48	125
Australian Universities Commission—					
Current	159	155	195	197	217
Australian Capital Territory—					
Current	4,044	4,451	5,254	6,207	7,509
Capital	2,772	3,507	4,652	4,770	4,731

COMMONWEALTH GOVERNMENT EXPENDITURE ON EDUCATION, 1964-65 TO 1968-69—*continued*

($'000)

Items of expenditure	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Northern Territory—					
Current	1,209	1,472	1,641	2,246	2,920
Capital	1,356	1,504	1,242	992	1,459
Other—					
Current	587	617	694	770	774
Capital	20	18	76	112	113
Total expenditure on goods and services—					
Current	7,008	7,913	9,616	12,140	15,047
Capital	4,148	5,028	5,979	5,282	6,428
Total	*11,156*	*12,940*	*15,595*	*17,962*	*21,475*
Grants to Australian National University—					
Current	11,400	12,658	14,223	16,698	18,954
Capital	5,392	5,062	5,316	5,570	5,500
Total	*16,792*	*17,720*	*19,539*	*22,268*	*24,454*
Grants to Canberra College of Advanced Education—					
Current	..	..	..	43	323
Capital	..	..	25	439	940
Total	..	..	*25*	*482*	*1,263*
Payments to the States(*a*)—					
Current—					
Research grants	..	1,378	2,038	3,154	2,879
Universities	28,529	31,551	34,262	39,912	43,534
Colleges of advanced education	..	..	2,472	5,273	6,282
Total, current	28,529	32,929	38,772	48,339	52,695
Capital—					
Universities	12,745	15,227	16,354	16,329	19,097
Colleges of advanced education	..	982	3,681	6,647	8,080
Technical	10,000	6,230	9,894	13,877	7,587
Teacher education	..	..	..	4,518	6,322
Secondary (science laboratories)	9,906	9,635	10,163	12,587	11,762
School libraries	..	..	..	..	1,703
Pre-school teachers colleges	..	..	..	..	170
Total, capital	32,650	32,074	40,091	53,958	54,721
Total	*61,179*	*65,003*	*78,863*	*102,297*	*107,416*
Cash benefits to persons—					
Commonwealth scholarship scheme—					
Post-graduate	1,236	1,733	2,432	2,899	3,588
University	7,903	10,064	13,890	13,383	16,268
Advanced education	..	198	660	754	1,001
Technical	212	600	816	1,031	1,123
Secondary	3,382	5,197	6,243	6,474	6,558
Soldiers' children education scheme	2,282	2,534	2,462	2,720	3,154
Other	573	812	816	852	903
Total	*15,588*	*21,140*	*27,319*	*28,113*	*32,595*
Grants towards private capital expenditure—					
Australian Capital Territory	86	237	249	1,435	825
Northern Territory	28	5	7	..	7
Other	210	..	..	..	..
Total	*324*	*242*	*256*	*1,435*	*832*
Overseas grants and contributions	647	660	700	753	749
Grand total	**105,687**	**117,703**	**142,299**	**173,411**	**188,784**

(*a*) Specifically for education.

The following paragraphs provide further details about the various items of expenditure in the foregoing table.

Department of Education and Science

Current expenditure shown under this heading in the above table relates mainly to salaries of departmental officers ($2,301,000 in 1968–69) and other administrative expenses ($748,000 in 1968–69). Some of the items included refer to research and investigations into colleges of advanced education; special investigations by, and grants to, the Australian Council of Educational Research; Commonwealth support for the training of school librarians; curriculum development; assistance to the University of Sydney for the production of the Current Affairs Bulletin; departmental rentals, and repairs and maintenance. Capital expenditure relates mainly to furniture and fittings for departmental offices. Departmental activities are described on page 660.

Australian Universities Commission

Expenditure shown under this heading in the above table relates to salaries of officers ($138,000 in 1968–69) and other administrative expenses ($79,000 in 1968–69). For a brief description of the Commission's activities *see* page 661. For detailed information *see* the *Australian Universities Commission, Fourth Report, May* 1969.

Expenditure on education in the Territories

Expenditure by the Commonwealth Government on education in the Australian Capital Territory and the Northern Territory in 1968–69 is shown in the following table. For further information about education in the Territories *see* Chapter 29, The Territories of Australia.

COMMONWEALTH GOVERNMENT EXPENDITURE ON EDUCATION AUSTRALIAN CAPITAL TERRITORY AND NORTHERN TERRITORY, 1968-69

($'000)

AUSTRALIAN CAPITAL TERRITORY		NORTHERN TERRITORY	
Current expenditure—		Current expenditure—	
Government schools and colleges—		Government schools—	
Pre-schools	245	Pre-school	143
Payment to New South Wales Department of Education	4,673	Payments to South Australian Department of Education; and teacher moving expenses	2,072
School transport(a)	203	School transport	185
Canberra Technical College	720	Repairs and maintenance	90
School of Music	68	Other	401
Repairs and maintenance	246	Non-government schools—	
Other	725	Student allowances	23
Non-government schools—		Other	7
Student allowances	226		
Assistance for buildings	403		
Total, current	*7,509*	*Total, current*	*2,920*
Capital expenditure—		Capital expenditure—	
Government schools and colleges—		Government schools—	
Pre-schools	114	New buildings and works	1,320
Primary schools	1,595	Plant and equipment	85
Secondary schools	2,084	Furniture and fittings	52
Canberra Technical College	154	Acquisitions	2
Plant and equipment	186		
Furniture and fittings	171		
Other building and related expenditure	427		
Non-government schools—		Non-government schools—	
Approved capital programmes(b)	396	Approved capital programmes(b)	7
Total, capital	*5,127*	*Total, capital*	*1,466*
Secondary school bursaries and text book allowances (c)(d)	84	Northern Territory Scholarships(c)(d)	156
Total expenditure	**12,720**	**Total expenditure**	**4,542**

(a) Includes expenditure in respect of non-government schools not separately identifiable. (b) Included in 'grants towards private capital expenditure' in table on page 669. (c) Excludes Commonwealth Secondary and Technical Scholarships. (d) Included in 'cash benefits to persons' in the table on page 669.

Other Commonwealth expenditure on goods and services

Current expenditure shown under this heading in the table on page 669 relates to grants to the School of Tropical Health and Medicine, the Chair of Natural Philosophy at the University of Melbourne, the Lady Gowrie Child Centres, and the Australian Pre-School Association; capital expenditure relates to the grant to the School of Tropical Health and Medicine, for plant and equipment. Further information about the School of Tropical Health and Medicine and the Lady Gowrie Child Centres is given in Chapter 14, Public Health.

Payments to the States specifically for education

The next table shows payments to the States specifically for education, by function, for 1968–69. Further descriptive information is given in the paragraphs following this table.

PAYMENTS BY THE COMMONWEALTH TO THE STATES SPECIFICALLY FOR EDUCATION, BY FUNCTION: EACH STATE, 1968-69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*All States*
Current—							
Research grants . . .	899	675	373	462	276	194	2,879
Universities	17,378	12,108	5,549	4,351	2,833	1,315	43,534
Colleges of advanced education	697	3,194	633	624	912	222	6,282
Total, current . . .	*18,974*	*15,977*	*6,555*	*5,437*	*4,021*	*1,731*	*52,695*
Capital—							
Universities	7,569	7,072	1,744	1,076	734	902	19,097
Colleges of advanced education	1,717	2,350	1,787	1,283	874	69	8,080
Technical training . . .	2,999	1,550	1,456	870	437	275	7,587
Teachers colleges . . .	1,210	1,600	1,293	677	582	960	6,322
Science laboratories—							
Government schools . .	2,684	1,550	734	692	530	235	6,426
Independent schools . .	1,979	1,505	778	510	391	174	5,336
Secondary school libraries .	450	500	300	213	168	72	1,703
Pre-school teachers colleges .	..	21	..	35	14	100	170
Total, capital . . .	*18,608*	*16,148*	*8,092*	*5,356*	*3,730*	*2,787*	*54,721*
Grand total . . .	**37,582**	**32,125**	**14,647**	**10,793**	**7,751**	**4,518**	**107,416**

Research grants. The amounts shown represent payments by the Commonwealth to the States under the States Grants (Research) Acts. The payments are based on the recommendations of the Australian Research Grants Committee. In addition to the amounts shown, $73,000 was made available to the Australian National University in 1968-69. A brief description of the history and activities of the Australian Research Grants Committee is given on page 660.

Universities. The amounts shown here represent payments by the Commonwealth under the Universities (Financial) Assistance) Acts. The amounts paid are based on the recommendations of the Australian Universities Commission, *see* pages 661-3. Further detail of income and expenditure of universities is given on page 650. Commonwealth expenditure in relation to the Australian National University is shown in the table on page 669.

Colleges of advanced education. The Commonwealth provides financial assistance to the States for colleges of advanced education under the States Grants (Advanced Education) Acts. Payments to the States are approved by the Minister for Education and Science acting on the recommendations of the Commonwealth Advisory Committee on Advanced Education. During the triennium 1967–69 the Commonwealth made available $250,000 for research into advanced education, $130,000 of this was expended in the financial year 1968–69. Commonwealth expenditure in relation to the Canberra College of Advanced Education is shown in the table on page 669. Further details of the activities of colleges and available Commonwealth grants are given in pages 650–2 and 663.

Technical training. The *States Grants (Technical Training) Act* 1968 provides for financial assistance to the States for buildings and equipment for use in technical training in State schools and similar institutions during the three years ending June 1971. Assistance available under this Act totals $30 million.

Teachers colleges. Under the *States Grants* (*Teachers Colleges*) *Act* 1967 the Commonwealth provides financial assistance to the States for approved building projects in connection with teachers colleges. A maximum of $24 million is available during the three years ending June 1970. For further details of teachers colleges and teacher education, *see* pages 652–5.

Science laboratories. The amounts shown under this heading in the above table represent payments under the *States Grants* (*Science Laboratories*) *Act* 1968 which provides for financial assistance to States for science laboratories and equipment in State and independent schools. For further details of this assistance, *see* page 664.

Secondary school libraries. The *States Grants* (*Secondary Schools Libraries*) *Act* 1968 provides for grants totalling $27 million to be paid to the States over the three years ending December 1971, by way of financial assistance for secondary school libraries in State and independent schools. *See* page 665 for further details. There were no payments in 1968–69 in respect of independent schools. In addition, the Commonwealth has sponsored special training courses, organised by the States, for school librarians. Expenditure in connection with these courses during 1968–69 totalled $21,000 and is included under 'Department of Education and Science—Current' in the table on page 668.

Pre-school teachers colleges. Under the *States Grants* (*Pre-school Teachers Colleges*) *Act* 1968, the Commonwealth provides financial assistance to the States for building projects. Payments not exceeding $2.5 million in aggregate may be authorised under the Act during the period December 1968 to June 1971. No payments were made to New South Wales or Queensland during the year.

Cash benefits to persons.

The distribution of cash benefits, on a State basis, is shown in the following table.

CASH BENEFITS TO PERSONS: STATES, 1968-69
($'000)

	N.S.W.(*a*)	*Vic.*	*Qld*	*S.A.*(*a*)	*W.A.*	*Tas.*	*Aust.*
Commonwealth Scholarship Scheme—							
Post-graduate	1,584	908	413	438	168	77	3,588
University	5,407	4,971	2,789	1,580	1,110	411	16,268
Advanced education	214	399	169	91	108	20	1,001
Technical	406	354	152	102	79	30	1,123
Secondary	2,603	1,821	916	583	459	174	(*b*)6,558
Soldiers' Children Education Scheme	1,135	857	546	291	182	128	(*c*)3,154
Other(*d*)	. .	. .	. .	. .	. .	. .	903
Total	**11,349**	**9,310**	**4,985**	**3,085**	**2,106**	**840**	(*e*)**32,595**

(*a*) Totals for New South Wales and South Australia include unallocable expenditure on cash benefits to persons resident in the Australian Capital Territory and the Northern Territory respectively. (*b*) Includes $2,000 paid to Australians abroad. (*c*) Includes $14,000 paid to Australians abroad. (*d*) Not allocable by State. (*e*) Excludes Aboriginal Study Grants ($70,000).

A brief description of each type of Commonwealth scholarship is given on page 665. Detailed information is available in the annual reports of the Commonwealth Scholarships Board. For additional information about the Soldiers' Children Education Scheme, *see* Chapter 5, Repatriation, and the annual reports of the Soldiers' Children Education Boards.

Included under 'other' in the table above are the following items: Australian-American Education Foundation ($180,000), Confederation of British Industries and Scholarships ($4,000), Royal Society and Nuffield Foundation ($4,000), Scholarships for New Zealand ($17,000), Forestry scholarships ($50,000), C.S.I.R.O. research studentships ($337,000), scholarships and allowances to students in the Australian Capital Territory (special university scholarships, $61,000; secondary school bursaries, $1,000; textbook allowances, $83,000) and special scholarships to students in the Northern Territory ($156,000). This table excludes Australian Agricultural Council scholarships ($50,000) and Aboriginal study grants ($70,000). Further details of these schemes are given on page 666.

Grants towards private capital expenditure.

This item represents amounts paid to independent schools in the Australian Capital Territory ($397,000) and the Northern Territory ($7,000) for approved capital programmes; and grants to affiliated residential colleges at the Australian National University ($428,000).

Overseas grants and contributions.

This item represents expenditure in connection with the Commonwealth Educational Co-operation Scheme. Details of Australia's participation in this scheme are given on page 661.

State expenditure on education

The following table shows, for the six States, expenditure on education classified into current expenditure and capital expenditure. Figures of current expenditure are based on an analysis which has been made for special use by the Commonwealth Grants Commission. In this analysis the purpose has been to show a comparison of State expenditure from the Consolidated Revenue Funds and certain special funds for the headings of education expenditure shown. Expenditures from Commonwealth grants for specific educational purposes have been excluded. Other items excluded are, inter alia, expenditure on education of Aborigines, where there is considerable variation from State to State, and expenditure on payroll tax and superannuation as suitable dissections are not available. The capital expenditure figures are limited to gross expenditure on educational buildings from the loan funds. This also excludes expenditure from Commonwealth capital grants for educational purposes and expenditure on buildings from certain special funds. Any capital expenditure from the Consolidated Revenue Fund would be included as current expenditure.

The totals of the table do not agree exactly with the totals which can be derived from the table on page 667. The overall analysis for National Accounts purposes, on which the table on page 667 is based, was originally in a very summary form and did not take account of some of the detail available in the Commonwealth Grants Commission work. The system is being developed into a more complete system of public finance statistics with the object of providing a more detailed classification and a reconciliation between the two analyses. Although comparisons of expenditure between the States are only approximate due to differences in organisation and accounting practices, for the present this table represents the most detailed breakdown available which is reasonably comparable between States. The figures relate to the year ended 30 June 1969 and expenditure per head of population relates total expenditure to the mean population.

STATE AUTHORITIES: ESTIMATED EXPENDITURE ON CERTAIN EDUCATIONAL ACTIVITIES, 1968–69

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*All States*
Current expenditure—							
Administrative and general (education departments and schools)	8,720	3,080	2,478	1,113	1,122	395	16,907
Transportation of school children and students	12,899	8,025	3,746	1,783	3,299	1,771	31,523
Training of teachers	13,209	19,887	4,287	5,936	3,482	1,800	48,601
Primary	88,247	67,923	32,747	23,574	22,067	7,859	242,416
Secondary	76,446	47,104	23,585	22,785	14,114	8,809	192,844
Universities	25,123	16,784	6,811	6,923	3,684	1,938	61,262
Technical education	17,455	35,783	4,783	1,323	6,604	1,407	67,355
Agricultural and forestry education	1,681	925	1,139	344	328	3	4,418
Total, current expenditure	*243,780*	*199,511*	*79,576*	*63,781*	*54,700*	*23,982*	*665,327*
Capital expenditure	56,724	42,192	13,400	13,835	10,484	5,921	142,556
Total expenditure	**300,504**	**241,703**	**92,976**	**77,616**	**65,184**	**29,903**	**807,883**
Per head ($)	67.83	72.03	53.08	68.35	70.17	77.53	67.39

ESTIMATED EXPENDITURE ON CERTAIN EDUCATIONAL ACTIVITIES, ALL STATES 1964–65 TO 1968–69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Current expenditure—					
Administrative and general (education departments and schools)	11,973	13,049	14,958	15,556	16,907
Transportation of school children and students	19,691	22,123	25,209	28,300	31,523
Training of teachers	29,509	33,762	37,237	41,474	48,601
Primary	172,647	182,310	196,720	216,625	242,416
Secondary	116,190	128,851	147,571	169,826	192,844
Universities	39,059	44,075	47,943	53,038	61,262
Technical education	40,117	45,080	50,122	57,532	67,355
Agricultural and forestry education	2,722	2,825	3,646	4,001	4,418
Total, current expenditure	*431,908*	*472,075*	*523,406*	*586,352*	*665,327*
Capital expenditure	102,905	113,072	121,038	123,543	142,556
Total expenditure	**534,813**	**585,147**	**644,444**	**709,895**	**807,883**
Per head ($)	**48.00**	**51.54**	**55.79**	**60.38**	**67.39**

CULTURAL ACTIVITIES

Libraries

The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is evidenced by the development of libraries, the passing of legislation in all States to increase library services, and the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia and incorporated by Royal Charter in 1963, and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations in librarianship for which courses of instruction are available in all States and the Australian Capital Territory.

An account of the establishment, growth and functions of the National, Commonwealth, and State libraries is given on pages 533–538 of Year Book No. 55.

Commonwealth libraries

National Library of Australia, Canberra. The Library comprehensively collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films, and sound recordings. It is assisted in this by the deposit provisions of the *Copyright Act* 1968 and has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts, and printed material in 1959, and the Ferguson collection of Australiana, acquired in 1970. The Library maintains a permanent exhibition of paintings, prints, and other historical material selected from its various collections.

In association with the Public Library of New South Wales, the Library copies on microfilm all important unique material overseas relating to Australia.

Australian National Bibliography, which appears weekly, monthly and annually, lists books published in Australia and books dealing wholly or substantially with an Australian subject or written by Australian authors. Associated with this compilation the Library provides a catalogue card service to libraries and others wishing to use its catalogue cards for Australian books. The publications of Australian governments, included in *Australian National Bibliography*, are also listed annually in *Australian Government Publications* and a subject list of serials is published each year under the title *Current Australian Serials*. The Library's principal activity in subject bibliography is its *Australian Public Affairs Information Service*, published monthly since 1945, with annual cumulations since 1955.

Co-operative bibliographical activity includes recording, in a series of union catalogues, the holdings of the major Australian libraries. The national union catalogue of monographs was commenced in 1960, since when all the larger and an increasing number of the smaller libraries have reported their monograph accessions to the National Library. The major published union catalogue is the loose leaf, continually revised *Serials in Australian Libraries, Social Sciences and Humanities*, which complements another catalogue, *Scientific Serials in Australian Libraries* published by the Commonwealth Scientific and Industrial Research Organization. The Library operates the Australian Medical Literature Analysis and Retrieval System (MEDLARS) service.

The National Library acts as a central library of documentary and educational films, its film collection containing approximately 8,000 titles, together with Australian historical films. It published *Australian Films: a Catalogue of Scientific, Educational and Cultural Films, 1940–58* in 1959 and annual supplements in succeeding years.

The National Library's collections contain over 1,000,000 volumes, 26,500 paintings, pictures and prints, 33,000 reels of microfilm, 2,200 running feet of manuscripts, 35,200 motion picture stills, 17,500 reels of moving picture films, 189,035 maps, and 500,000 aerial photographs.

Patent Office Library. The Library of the Commonwealth Patent Office, Canberra, contains approximately 15,000 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are over 11,000,000. Indexes include a microfilm of a classified index to 3,000,000 U.S.A. patents and translations of abstracts of U.S.S.R. patents.

Commonwealth Scientific and Industrial Research Organization. The library holdings of the Organization cover the pure and applied sciences. In addition to the Central Library in East Melbourne, each of the Divisions and Sections has a specialised collection covering such subjects as food preservation, forest products, chemistry, physics, animal health, and fisheries. The Central Library maintains a union catalogue of the holdings of all CSIRO libraries.

The Australian War Memorial Library. In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in wars in which they have participated. The printed records section contains over 70,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings, war posters, and postage stamps. The collection of official war photographs covering the 1914–18, 1939–45 and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war.

The Commonwealth Parliamentary Library. The Library provides a special type of service designed to meet the needs of Parliament. The Legislative Research Service prepares briefs covering the history of a subject, background information, summary of viewpoints and arguments, and the compilation and interpretation of statistical information. The Legislative Reference Service answers questions and provides information on any subject from books, government documents, Hansard reports, periodical articles, and newspapers. The Library collection is concentrated on topical material, supported by a wide collection of standard references; the collection totals 40,000 volumes, including 6,000 serial titles. The Library produces a regular series of abstracting bulletins, such as *Education and Welfare*; *Finance, Industries, Trade and Development*; *Science and Technology*; and *Defence and Foreign Affairs*, for the use of Parliament.

Other Commonwealth Government libraries. Most Commonwealth authorities have specialised collections in their own fields and in addition draw largely on the National Library.

Library services in the Territories. The Northern Territory Library Service maintains five centres in the Territory. At 30 June 1969 stocks totalled 67,903 volumes which were held at the following centres: Darwin, 30,305; Nightcliff, 8,421; Alice Springs, 18,276; Tennant Creek, 5,804; Katherine, 5,097. The National Library, through its Extension Services Section, conducts the Canberra Public Library Service to residents of the Australian Capital Territory, to whom 995,639 loans were made in 1968–69. At 30 June 1969, 248,136 volumes were held, 152,697 at adult libraries, and 95,439 at children's libraries.

State libraries

New South Wales. At 31 December 1969, 182 councils had established libraries in terms of the Library Act, 1939–1959. During 1968–1969 they spent on their libraries $5,586,796 including $1,170,162 received in subsidy. There are 261 libraries, of which 94 are in the metropolitan area and 167 in the country. There are also 24 bookmobiles, of which one is in Sydney, 9 in the suburbs of

Sydney, and 14 in country municipalities and shires. These libraries contain 3,993,990 volumes. The State Library provides a central cataloguing service for municipal and shire libraries constituted under the Act.

Under the Library of New South Wales Act, 1969, the former Public Library of New South Wales became the Library of New South Wales. It includes a General Reference Department of 583,737 volumes, a Circulation Department, together with the Shakespeare Tercentenary Memorial Library, and the Mitchell and Dixson Libraries and Galleries which are mainly devoted to Australian and Pacific material. The circulation Department lends books to municipal and shire libraries and to individual borrowers. The total stock of the Department is 73,302 volumes, and 39,939 books were lent to public libraries and individual borrowers during 1968–69. In 1969 there were 243,985 volumes in the Mitchell Library, in addition to manuscripts, maps and other material. The total number of volumes in the Library of New South Wales now exceeds 955,500 apart from manuscripts, historical pictures, and other material. The library maintains an adult education section servicing adult education activities for the Universities of Sydney and New England and the Workers' Educational Association.

Other important libraries in New South Wales are: Teachers Colleges, 352,289 volumes; the City of Sydney Public Library, 219,255; Technical Education Branch, 281,882; Railway Institute, 169,792; Parliamentary Library, 137,000; Australian Museum, 36,400; Government Transport Institute, 23,988; New South Wales Teachers' Federation Library, 25,000; Workers' Educational Association, 15,443; and the Library at the National Herbarium, over 10,000 volumes.

Victoria. In 1970, 157 Councils shared Government library grants amounting to $1,335,000. Of this amount, $1,272,893 was direct municipal library subsidy. With the addition of expenditure from these Councils' own funds the total expenditure on municipal library services for 1969–70 will be nearly $3,940,000. In 1969, 705,000 borrowers used the free library services, now totalling over 2,500,000 books, to the extent of 13,640,000 issues.

Particularly in the country, service has been developed by means of regional libraries. These services, of which there are 25 at present, comprising a total of 108 councils, consist of groups of councils which pool their resources, book-stocks and trained staff. The Victorian Government provides an Establishment and Regional Library Development Grant of $54,250 per annum.

There are 13 bookmobile services operating in Victoria, 10 in country regions and 3 in the metropolitan area.

The State Library of Victoria contains about 880,000 items, and the lending and travelling libraries have another 187,500 volumes. In addition, the State Library receives 7,027 periodicals, annuals and newspapers.

Queensland. The holdings of the Public Library of Queensland and its extension services in 1968–69 were: main reference collection, 211,335 volumes and 12,772 maps and pamphlets; Country Extension Service, 90,828; Oxley Memorial Library, 27,114 volumes and 39,163 maps, pamphlets and miscellaneous items.

Local authorities are empowered by the Libraries Act to establish and conduct library services as a function of local government. In 1968–69, 82 local authorities were conducting 142 library services. The Brisbane City Council has established 21 of these libraries. There were 115 libraries in Queensland free to adults. To help overcome the problems of a large area and sparse population, various local authorities have established 4 regional library services with headquarters at Charleville, Barcaldine, Mount Isa and Emerald, respectively. During 1968–69 the State Government provided a grant of $716,685 from consolidated revenue to finance the activities of the Public Library, to pay subsidies to local bodies conducting free library services, and for the acquisition or improvement of library buildings and equipment and to pay seventy-five per cent of endowable expenditure on books, equipment and maintenance to local bodies conducting subscription libraries. Subsidies were paid to 4 regional library service boards, 75 local authorities and 33 other bodies.

At 30 June 1969 the Parliamentary Library of Queensland contained about 100,000 volumes and pamphlets.

South Australia. The Reference Department of the State Library of South Australia contains 259,103 volumes and receives about 5,000 periodical titles. There are 51,052 volumes in the Adelaide Lending Service. The Country Lending Service has 399,972 volumes. The Adelaide Lending Service lent 300,058 books in 1968–69, and the Country Lending Service, 178,884.

The library of the Parliament of South Australia held approximately 60,000 volumes in 1969.

There are 29 local public libraries in South Australia provided by 22 local government and other authorities. The libraries are subsidised on a $1 for $1 basis by the State Government. The Libraries

Board of South Australia, through the State Library of South Australia, provides various central services. Book-stocks are pooled in the State Library of South Australia and are interchanged between the libraries.

At the end of June 1969 these local public libraries contained 255,935 books. There were 143,963 registered borrowers. During 1968–69, 2,103,129 books were lent.

Western Australia. The Library Board of Western Australia administers the State Reference Library and the Central Music Library, and provides all books and related services to 125 local public libraries throughout the State. Its stocks at 30 June 1969 were 956,315 volumes, comprising circulation stock (including books in public libraries), 657,149 volumes, State Reference Library, 283,267 bound volumes and Central Music Library, 3,900 books on music and 11,999 scores.

Tasmania. The Tasmanian Library Board administers the State Library in Hobart, the extension of library services throughout the State and State aid to libraries. State Government expenditure on library services in 1968–69 was $593,520. A regional library operates in 5 north-western municipalities, with headquarters in Burnie, smaller libraries in other large towns and a bookmobile in rural areas. The formation of a second regional library, with headquarters in Launceston, is being negotiated. Fourteen southern municipalities are served by 2 bookmobiles based in Hobart and a bookmobile serves schools in the metropolitan area. At 30 June 1969 the State Library in Hobart held 127,482 reference volumes and 111,143 lending volumes. It loaned 401,097 books to municipal libraries during 1968–69.

University libraries

A description of libraries in Australian universities appears on pages 539–41 of Year Book No. 55. The following table shows the number of books and pamphlets held, accessions during the year, and expenditure on libraries for each university. For further information, *see* annual mimeograph publication *University Statistics—Part 2: Staff and Libraries* (reference No. 13.8).

UNIVERSITY LIBRARIES

University	*Books and pamphlets* (*a*)	*Accessions during year* (*b*)	*Expenditure* (*c*)
	'000	'000	$'000
Sydney	1,221	80	1,313
New South Wales	517	61	916
New England	263	17	315
Newcastle	142	17	252
Macquarie	200	45	437
Melbourne	596	37	909
Monash	338	50	1,013
La Trobe	99	24	420
Queensland	611	55	955
Adelaide	500	27	593
Flinders	133	21	308
Western Australia	348	24	480
Tasmania	179	14	320
Australian National	519	42	899
Total	**5,665**	**513**	**9,129**

(*a*) 30 June 1969. (*b*) Year ended 30 June 1969. (*c*) During year ended 31 December 1968.

Children's libraries and school libraries

For details of Commonwealth grants for the development of secondary school library services, *see* page 665 of this chapter.

New South Wales. Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents and citizens associations and partly by departmental subsidy. Secondary and central schools, and an increasing number of primary schools, have teacher librarians.

Victoria. The Education Department provides for the building of libraries in secondary and technical schools, and new primary schools with 10 or more classrooms. A subsidy of up to $7,000 is available to other primary schools for library buildings. Library furniture is provided, establishment grants are given to new schools for the purchase of books, and the Government provides an annual per capita grant to all schools. At June 1969, 386 primary, 246 secondary, and 86 technical schools had central libraries.

Queensland. In Queensland, 136 libraries are free to children, of which 21 are conducted by the Brisbane City Council. Country children may borrow from the Country Extension Service which has a separate children's collection. The purchase of books for State school libraries in Queensland is financed by school committees and parents associations, with a $1 for $1 subsidy from the Department of Education.

South Australia. A children's library of 39,404 volumes is used by school classes and individual children living in the metropolitan area. In 1968–69, 230,597 books were lent. A lending service for young people from thirteen to eighteen years of age has a stock of 15,740 volumes, and in 1968–69, 99,465 loans were recorded.

Western Australia. The Education Department provides library services, books and subsidies on library books purchased by schools. All government high schools are provided with library accommodation and furniture and their libraries are staffed by one or two trained school librarians according to the size of the school. New high schools are issued with books to a value of $1,000 in each of their first three years and all high schools receive an annual issue of books and a subsidy for book purchases. New primary schools are issued with books to the value of $400 in their first year. All non-government schools with post-junior students receive an annual issue of books for matriculation studies. A number of primary schools have organised school libraries in rooms available, or in premises provided by the parents and citizens associations. Annual issues of books are made to all primary schools, varying according to the size of the school, and a subsidy is provided for the purchase of library books. The Charles Hadley Travelling Library provides 500 boxes of books which are circulated to all small schools, mission schools, and special classes. Children who are unable to attend school are provided with books from the Correspondence School's library.

Tasmania. All the State's municipal libraries have Lady Clark Memorial Children's Libraries. The Lady Clark Memorial Children's Library in the State Library in Hobart has 26,006 books and serves schools in the Hobart Metropolitan area by bookmobile. More than 150 schools which are not close to a municipal library have collections of books on loan from the Lady Clark Memorial Children's Library, which has a stock of 191,393 books. Libraries have been built up in most schools, with Education Department subsidies matching local funds to levels determined by the size of the school. A new Central Library Service Branch offers bibliographic and technical advice on school library development.

Archives

General interest in archives in Australia was aroused in 1888, when the Colony of New South Wales celebrated its centenary, the occasion being marked by official publication in 1889–1894 of the *History of New South Wales from the Records* by G. B. Barton and A. Britton, and in 1893–1898 of the series of *Historical Records of New South Wales*, edited by A. Britton and F. M. Bladen. Both publications were based on transcripts of documents in London which had been made by Mr James Bonwick, appointed Archivist by the Government of New South Wales in 1884.

In 1902 Mr F. M. Bladen presented to the Commonwealth Government a report on European Archives, in which he recommended the establishment of a Commonwealth Archives Office and the copying of further official records in London. The copying project continued and some of its results were embodied in the volumes of *Historical Records of Australia*, published by the Commonwealth in 1914–1925, under the editorship of Dr J. F. Watson.

Measures for the preservation and storage of original documents were not taken until later years. In the absence of duly constituted archives offices, the various major libraries throughout Australia undertook the collection of historical records, both from official and private sources. An archives Department of the Public Library of South Australia was established in 1920, and other institutions formed archives branches in, 1944 (Commonwealth National Library), 1945 (Public Library of Western Australia), 1948 (State Library of Victoria), 1949 (State Library of Tasmania), 1953 (Public Library of New South Wales), and 1959 (State Library of Queensland). Legislation to govern arrangements for official records was passed as follows: South Australia (1925, 1936), Tasmania (1943, 1965), Queensland (1943) and New South Wales (1960). Since 1961, separate authorities for official archives have been established: Commonwealth Archives Office, 1961; Archives Office of New South Wales, 1961; Archives Office of Tasmania, 1965. A Business Archives Council was established in 1954 to co-ordinate activities in the field of company records and a number of firms have established their own archives services. Certain churches have also provided appropriate facilities for ecclesiastical records. Other corporate and private archives continue to be collected by several archives offices, libraries and, more recently, universities.

Commonwealth Archives Office

An account of the development of the Commonwealth Archives Office and a detailed description of its functions appear on pages 543–4 of Year Book No. 55. The Archives Office functions as a central agency for the control of records created by the Commonwealth Government which are no longer required in the day-to-day business of government. At 30 June 1969 the total holdings of the Archives Office throughout Australia amounted to 407,000 shelf feet of records, including 147,000 feet of permanent material, such as files, manuscripts, registers, cards, books, maps, plans, models, paintings, films, photographs, microfilms, recordings and tapes. In general official records created before 1 January 1923 are open to public access. The Office provides an advisory service to inquirers, both official and public, on appropriate sources of information for particular topics including material held by the Office itself, by other Commonwealth agencies and elsewhere. During 1968–69 some 328,000 items were lent to departments. The Office carries out searches for departments and provides information from the records in its custody. About 13,700 requests for these services were received in 1968–69. In accordance with the Commonwealth Government's access rules, the Office also supplies information to members of the public engaged in academic or other forms of research. Records may be consulted by holders of a search ticket and 113 public search tickets are currently valid. During 1968–69 inquiries were received from 233 researchers. There were 7,000 daily visits to archives search rooms and repositories by officials and the public, and 30,650 items were produced for consultation.

The headquarters of the Commonwealth Archives Office is in Canberra, and there are branches in Sydney, Melbourne, Brisbane, Adelaide and Perth. In 1969 records surveys were conducted in the Northern Territory, Papua and New Guinea, Norfolk Island and Cocos (Keeling) Islands. The Office maintains liaison with similar organisations in overseas countries and is the Australian national member of the International Council on Archives, established under the auspices of Unesco.

Archives Office of New South Wales

The Archives Authority of New South Wales is a statutory corporation established under the Archives Act 1960 and has custody and control of the State archives. These are preserved in the Archives Office of New South Wales.

The Act requires that before any public records of the State are destroyed or disposed of, notice must be given to the Archives Authority which may then require any such records to be made available to it. Records transferred to the Authority become State archives and when 35 years old are generally open to holders of a reader's ticket.

The State archives at 31 December 1969 occupied 31,959 feet of shelving. This excludes more than 16,000 maps and plans besides other records which cannot be readily measured. In addition there were about 100,000 feet of permanently valuable records housed mainly in the Government Records Repository.

Archives Office of Tasmania

The Archives Office of Tasmania operates under the *Archives Act* 1965, No. 47. The statutory authority under the Act is the Tasmanian Library Board. No records of state and local authorities may be destroyed or otherwise disposed of except on the written authority of the Principal Archivist. The holdings of the Archives Office amount to about 11,000 feet (including non-public records).

Three parts of a Guide to the Public Records of Tasmania have been published and five further record groups are being inventoried for publication. A file lending service is conducted for the benefit of departments and authorities which have deposited semi-current records in the Archives Office. Research workers have access to records in the search room and a mail reference service is provided for country and interstate inquirers.

Australian National University Archives

The Australian National University Archives was established in 1954 when the records of the Australian Agricultural Company were acquired, and in 1959 its collecting activities were expanded to include records of employee organisations. The University now holds a collection of the records of businesses (approximately 110 accessions) and of trade unions (approximately 170 accessions).

The aim is to gather primary source material to support advanced research within the University in economic history, history, and political science. Detailed arrangement and description are undertaken and close liaison is maintained with scholars in the Research School of Social Sciences to keep the collecting policy abreast of trends in research. Scholars from other universities are also helped, and reference work is carried out to answer inquiries. The University Archives include deposits which have been microfilmed and pamphlet collections of interest to research workers in political history.

Business Archives Council of Australia

The Business Archives Council of Australia works for the preservation of business records and promotes the writing of business history. The Council itself does not collect business records. The main collecting centres are the Archives of the Australian National University, the University of New England and University of Melbourne. The University of New England concentrates on rural industries.

Museums and art galleries

In 1964 an annual collection of statistics on a uniform basis was commenced from Australian museums and art galleries. The following paragraphs provide summarised results of the collection.

A museum or art gallery is considered to be a building, group of buildings or parts of buildings, managed as a unit and intended predominantly for the permanent display of objects of interest (museum) or objects of art (art galleries) to the general public. Institutions displaying live exhibits are excluded (the more important of these are mentioned on pages 681–2), as are buildings used for temporary displays (exhibitions, commercial galleries exhibiting only for sale) without a permanent stock of exhibits; permanent exhibitions which are ancillary to other activities such as exhibits at council chambers, libraries, hotels, and other commercial enterprises providing services to tourists and sightseers; collections which are not readily accessible to the general public, such as university collections for the use of students and research workers; and historic homes, etc. not specifically intended for the permanent display of objects of interest (i.e. where the building itself and its normal fittings are essentially on display).

Museums and art galleries, 1969

The following table classifies by States and Territories and by ownership the institutions in Australia which have been identified in 1969 as museums and art galleries (branches of museums and art galleries are not shown separately).

MUSEUMS AND ART GALLERIES: STATES AND A.C.T., AND OWNERSHIP, 1969

(Number)

	Major institutions			*Other institutions*			
	Museums	*Art galleries*	*Mixed institutions*	*Museums*	*Art galleries*	*Mixed institutions*	*All institutions*
State or Territory—							
New South Wales	3	1	..	4	3	2	13
Victoria	2	1	..	2	5	2	12
Queensland	1	1	..	..	3	..	5
South Australia	1	1	..	6	2	..	10
Western Australia	1	1	..	3	1	..	6
Tasmania	..	..	2	..	..	..	2
Northern Territory	..	..	..	..	..	..	..
Australian Capital Territory	1	..	1	1	..	..	3
Ownership—							
Commonwealth Government	1	..	1	..	..	..	2
State Governments	8	5	1	3	..	1	18
Municipal authorities	..	..	1	5	6	1	13
Private trusts	..	..	..	2	6	1	9
Universities	..	..	..	1	1	1	3
Private	..	..	..	5	1	..	6
Total museums and art galleries	**9**	**5**	**3**	**16**	**14**	**4**	**51**

The following table sets out particulars of staff, display areas and expenditure for all museums and art galleries identified in 1969.

MUSEUMS AND ART GALLERIES: STAFF, DISPLAY AREA, ATTENDANCE, AND EXPENDITURE, STATES AND A.C.T., 1969

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Total staff—									
Museums		213	161	39	83	66	. .	19	581
Art galleries		49	190	22	46	23	. .	. .	330
Mixed institutions		15	10	. .	. .	. .	38	72	135
All institutions		*277*	*361*	*61*	*129*	*89*	*38*	*91*	*1,046*
Display area used—									
Museums	'000 sq ft	105	85	28	57	17	. .	11	303
Art galleries	,,	51	148	22	34	12	. .	. .	267
Mixed institutions	,,	13	15	. .	. .	. .	77	76	181
All institutions	,,	*169*	*248*	*50*	*91*	*29*	*77*	*87*	*751*
Estimated attendance during year—									
Museums	'000	1,109	774	137	273	167	. .	185	2,645
Art galleries	,,	428	901	146	138	135	. .	. .	1,748
Mixed institutions	,,	50	57	. .	. .	. .	175	553	835
All institutions	,,	*1,587*	*1,732*	*283*	*411*	*302*	*175*	*738*	*5,228*
Estimated expenditure during year(*a*)—									
Museums	$'000	768	481	146	272	271	. .	105	2,043
Art galleries	,,	212	832	65	110	128	. .	. .	1,347
Mixed institutions	,,	60	69	. .	. .	. .	206	845	1,180
All institutions	,,	*1,040*	*1,382*	*211*	*382*	*399*	*206*	*950*	*4,570*

(*a*) Excludes certain funds not controlled by the institution.

Some descriptive detail in respect of the major institutions is given on pages 547 to 549 of Year Book No. 55.

Botanical and zoological gardens

In addition to the zoological gardens referred to in the following paragraphs there are numerous privately owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc., dedicated for public use, which are preserved largely in their natural condition.

New South Wales

The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour. They occupy sixty-six acres and contain a large collection of flowering plants, shrubs and trees as well as hothouses of orchids and ferns.

The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, occupy about seventy acres and contain an aquarium. In 1968–69 admissions to the grounds were 941,350 and to the aquarium 323,108. The receipts of the zoological department of the Taronga Park Trust amounted to $573,968 in 1968–69 and expenditure was $517,420. Exhibits at 30 June 1969 comprised 917 mammals, 2,871 birds, 354 reptiles, 10 amphibians and 1,010 fish.

Victoria

The main botanical gardens in the State are the Royal Botanic Gardens, an area of eighty-eight acres within one mile of the centre of the City of Melbourne, containing over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens.

The Zoological Gardens in Royal Park contain a wide selection of animals, birds and reptiles. A wild life sanctuary is also maintained at Healesville.

Queensland

Botanical gardens have been established in Brisbane and in several other cities. The Brisbane Botanic Gardens occupy approximately forty-six acres on the banks of the Brisbane River in the central city area and are noted for their collections of palms, tropical trees and shrubs, and succulents; they contain over 7,500 species.

South Australia

The Botanic Garden covers forty-five acres and contains collections of Australian and exotic plants from low rainfall and sub-tropical regions. In glasshouses are collections of tropical, ornamental and economic plants. Special collections include cacti and succulents, bromeliads, and begonias. An up-to-date and comprehensive botanical and horticultural library is maintained.

Mount Lofty Botanic Garden, of approximately 180 acres, was established in 1960 and is expected to be opened to the public by the mid-1970s.

The State Herbarium was established in 1952 and moved to the present building in 1965. It contains about 250,000 specimens.

The Zoological Gardens, opened in 1883, have an area of approximately 19 acres, and contain a fine collection of animals, reptiles, and birds.

Western Australia

A botanic garden and arboretum for the native plants of Western Australia is in King's Park, a reserve of almost 1,000 acres close to the centre of Perth. The West Australian collections at present comprise a total of 1,200 species of trees and wildflowers. Virtually all trees native to the southern half of the State, with the exception of some rare mallees, are represented in the arboretum.

Regular field work is undertaken to collect material and carry out botanical exploration. Seed of native plants collected is distributed to botanical institutions throughout the world and to private growers and nurserymen. An annual seed list offers from 900 to 1,000 species. About 8,000 packets of seed are distributed each year.

Research on propagation of native plants is carried on in the nursery and information acquired is passed on to growers through State branches of the Society for Growing Australian Plants and its journal. Facilities are provided for the employment and ancillary training of students enrolled in the three-year course of the Western Australian Certificate of Horticulture and Park Administration.

The Zoological Gardens at South Perth have an area of 44 acres and are under the control of the Zoological Gardens Board. Animals, birds and reptiles are exhibited. During the year 1968–69, 198,726 adults and 169,684 children visited the zoo.

Tasmania

The Royal Tasmanian Botanical Gardens adjoining Government House on the Queen's Domain contain a fine collection of exotic trees and shrubs and a small aviary.

There are three main privately owned wildlife sanctuaries and zoos, each with a few exotic animals, at Granton near Hobart, at Punch Bowl near Launceston and at Westbury, 20 miles from Launceston. The Launceston City Council keeps a small collection of animals and birds at City Park.

Northern Territory

The Darwin Botanical Gardens occupy eighty acres and feature tropical plants of both native and overseas origin. They are controlled by the Darwin City Council.

Australian Capital Territory

The Canberra Botanic Gardens on the lower slopes of Black Mountain have been under development since 1950. The gardens are on a 100-acre site and are being developed for the study of the botany, propagation, and cultivation of Australian native plants. The gardens were opened for public inspection in 1967 and were officially opened in 1970.

Book publishing

Australian book publishing

Statistics about Australian book publishing are prepared from data supplied by the National Library of Australia, which receives practically all books and pamphlets published in Australia (including the External Territories), although not necessarily in the year of publication.

The method of counting conforms with international practice. Each title is counted as one unit. The figures cover all non-periodical publications published in Australia. They refer to all publications of five pages or more and include pamphlets, new translations, and re-editions. They include government publications, educational textbooks, published university theses, etc., but exclude publications not available to the general public, advertising material, publications of transitory interest, musical works, and maps and charts.

Number of publications received

The following table shows the number of publications received by the National Library in 1969 by subject group and publisher. Trade publishers are those organisations set up predominantly for publishing, whose title output is significant and widely available throughout the bookselling trade. Comparative figures are given for receivals from 1965 to 1968.

AUSTRALIAN PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY IN 1969: SUBJECT GROUP AND PUBLISHER

	Books	*Pamphlets*	*Total*
Subject group—			
Bibliography, libraries, general	47	53	100
Philosophy, psychology	23	18	41
Religion, theology	43	66	109
Social sciences	566	866	1,432
Linguistics, philology	53	8	61
Science	206	155	361
Technology, business	323	569	892
Art, amusement	117	128	245
Literature—			
History of literature, literary criticism, anthologies, school editions	30	7	37
Australian literature	215	46	261
Other literature	46	19	65
Geography, travel	133	48	181
History, biography	103	51	154
All publications	*1,905*	*2,034*	*3,939*
Publisher—			
Government	312	1,077	1,389
Trade	1,059	223	1,282
Other	534	734	1,268
Total	*1,905*	*2,034*	*3,939*
Annual receivals—			
1968	1,716	1,714	3,430
1967	1,606	1,806	3,412
1966	n.a.	n.a.	3,026
1965	n.a.	n.a.	2,733

Commonwealth Literary Fund

The Commonwealth Literary Fund awards fellowships each year, assists in the publication of manuscripts of high literary merit, makes annual grants for lectures in Australian literature, and awards pensions to creative writers who have achieved a nation-wide reputation for their work. The fellowships are awarded each year to writers who have proved their capacity and to writers of promise, to enable them to work full-time on a literary project. A fellowship carries a maximum value of $6,000 a year.

The Fund also guarantees assistance to publishers who cannot wholly finance the publication of manuscripts which have outstanding literary merit.

Australian literature is now an accepted field of university scholarship but universities may still apply for a grant to enable lectures to be given on special occasions. In 1956 the Fund initiated a scheme of lectures to the general public and to schools, mainly in country areas, with the co-operation of State adult education authorities and Education Departments. All State adult education authorities receive grants for this purpose. The Fund also assists certain literary magazines.

The Fund is administered by a committee consisting of one representative of each of the three main political parties in the Parliament, the chairman being the Prime Minister. The committee is advised on all literary matters by an advisory board of six persons with literary qualifications.

Commonwealth assistance to Australian composers

In 1967 the Commonwealth Government appointed an advisory board to advise it on projects to encourage Australian composers. The purpose of Commonwealth aid in this field is to assist any project which will facilitate the performance of Australian compositions, and to promote a better understanding of Australian music. On the advice of the Board, the Commonwealth provides financial assistance to enable composers to work full-time on compositions which are assured of performance; finances a scheme to enable young composers to gain experience in advanced techniques; assists the publication of scores which music publishers cannot wholly finance; assists to meet the costs of copying parts for performance; acquires copies of compositions for insertion in the Australian Society of Music Education Journal, to introduce school children to Australian music; and promotes Australian music overseas.

Film production

Australian National Film Board

The Australian National Film Board advises the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration; and for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies, and to encourage immigration.

The Board has twelve members, with the Director of the News and Information Bureau, Department of the Interior, as chairman and the remainder representative of Commonwealth departments, State government instrumentalities, and other interested organisations.

Commonwealth Film Unit

The Film Division of the News and Information Bureau, Department of the Interior, is the official film production and distribution agency for Commonwealth departments and instrumentalities. It is referred to as the Australian Commonwealth Film Unit. It distributes theatrical and television Film Unit productions in Australia and overseas through its representatives at Australian official posts. Non-theatrical distribution in Australia is arranged in co-operation with State film distribution agencies, and through the National Library of Australia.

The Film Unit produces films for general exhibition, as well as training and special purpose films. In 1969–70 the Film Unit produced approximately 110 reels of new films and 150 reels of foreign versions of existing films. While many films are released commercially abroad, the emphasis is on distribution of educational and information films through non-theatrical circuits. Selected films have been recorded in most Asian and European languages and in Esperanto and Pidgin.

In addition to films made on its own initiative, the Commonwealth Film Unit produces films under the sponsorship of, or with the co-operation of, Commonwealth departments and other government instrumentalities. It participates in cultural events such as those surrounding Expo '70 in Japan.

Censorship

National Literature Board of Review

The National Literature Board of Review was established in 1968, following Commonwealth–State agreement, to achieve uniformity in the administration of laws relating to blasphemous, indecent or obscene publications of *prima facie* literary, artistic or scientific merit. In terms of the Agreement the Board is established under the Customs (National Literature Board of Review) Regulations. Appropriate Ministers of any State may, under the Agreement, refer works published or distributed locally to the Board for advice. Subject to retention of final responsibility by each Minister it is the intention of the Governments concerned not to act against a publication of merit which the Board advises is suitable for distribution in Australia.

Film censorship

The Commonwealth Government's powers over censorship of films under the Customs Act extend only to imported films and imported advertising matter. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. The Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. Legislation passed by the State Governments of Victoria, Queensland, Western Australia, and Tasmania names the Commonwealth

Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or not. The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising.

The censorship organisation comprises a Censorship Board of seven persons and an appeal censor, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Appeal Censor.

Thirty-five mm films for exhibition in picture theatres. In 1969, 1,772 films comprising approximately six million feet, were censored. This represented approximately 1,144 hours screening time. Of these films, 688 originated in the United Kingdom, 386 in the United States of America and 698 in other countries. Principal suppliers among the last mentioned were: U.S.S.R. (124), Greece (78), Italy (75), France (74), Japan (35), India (22), Sweden, Germany (19 each), South Africa (17), Holland (16) and Yugoslavia (15). Included in these figures were 581 full-length feature films. Feature films came from the United States of America (185), the United Kingdom (84), Italy (57), U.S.S.R. (51), France, (41) Greece (36), Sweden (17), Yugoslavia (11), India, Israel and Japan (9 each). Sixty-one feature films were rejected and cuts were made from 146. There were 35 appeals; 21 against rejection, 2 against cuts and classification, 11 against cuts, and 1 against refusal to export. Four appeals were allowed and 31 disallowed.

Feature films classified as suitable for general exhibition numbered 176, and 344 were considered not suitable for children. Of the latter, 116 carried the special condition that all advertising should indicate that they were suitable only for adults. These classifications are advisory only. In addition to these imported films, 169 thirty-five mm films of 189,680 feet produced in Australia were cleared. These were mainly newsreels and documentaries intended for commercial exhibition or export.

Sixteen mm films. Excluding those imported for television use, 8,005 sixteen mm films of approximately 7 million feet were examined. These were films commercially produced for screening in theatrettes used by business undertakings for advertising and instructional purposes, and for screening in churches, schools and universities. They also included a number of 16 mm theatrical features, some having been previously imported in 35 mm. Three were rejected.

Eight and 9.5 *mm films.* Approximately 268,000 feet of 8 mm and 9.5 mm films were examined. One hundred and fifty-four films with an approximate footage of 16,100 feet were rejected.

Television films. In 1969, 7,325 films for use on television, predominantly 16 mm, of approximately 11 million feet, were censored. The films censored for television amounted to approximately 5,030 hours screening time. On a footage basis the United States of America supplied 67 per cent of the total imports and the United Kingdom 25 per cent. Nineteen television films were rejected outright and an additional 37 were classified as unsuitable for televising. Eliminations were made from 736. There were 20 appeals, 5 against rejection and 15 against classification, of which 2 were allowed and 18 disallowed.

Foreign language films. Countries other than the United Kingdom and the United States of America supplied 698 of the 35 mm foreign language films imported for theatrical exhibition, of which 312 were feature films. Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary and in some cases English dubbed dialogue. Of 8,005 sixteen mm films censored, 1,784 originated from non-English speaking countries. The chief supplying countries were Germany (339), France (318), Japan (249), Italy (215), India (97), Holland (91), Switzerland (55), Czechoslovakia (51), USSR and Poland (47 each), Sweden (43), Yugoslavia (19), and Denmark (18).

Export of films. The quantity of films exported for the year was approximately 2.5 million feet, consisting mainly of newsreels, advertising films and documentaries. This footage included in many cases several prints of the one film. It also included large quantities of exposed negatives sent overseas for processing.

Cultural organisations

Arts Council of Australia

The Arts Council of Australia has divisions in the Australian Capital Territory, New South Wales, Victoria, Queensland, South Australia, Tasmania and the Northern Territory. The New South Wales Division has over 50 branches, Queensland has over 40, South Australia 22 and Tasmania 8. A Federal Secretariat was opened in Canberra in 1969.

The Arts Council Divisions receive State Government grants through the Departments of Education in New South Wales, Queensland and South Australia. Some activities of the Council are supported financially by non-metropolitan local government bodies. The New South Wales Division is represented on the Adult Education Advisory Board in that State, and on the Music Committee of Unesco. The Tasmania Division is represented on, and works closely with, the Adult Education Board of that State.

The Arts Council works to bring the arts to country centres and metropolitan and country schools and is concerned with taking the arts to children. Tours of high standard companies in opera, ballet, drama, puppets, etc., operate throughout the year. The Arts Council works closely with the Australian Ballet, the Australian Trust Opera and the Old Tote Theatre Company in organising country tours for these bodies.

The Council handles a wide range of art exhibitions in city and country areas. Summer schools and other courses for drama, painting, pottery, music, and other arts are an established feature of the work of the New South Wales and Queensland Divisions, as are weekend schools of drama, music, painting and pottery.

Yearly drama festivals are conducted. The New South Wales Division sponsors biennial arts festivals in Sydney (North Side Arts Festival), with the fifth festival being planned for August 1971. The Queensland Division of the Arts Council organises an annual Summer School of the Arts.

School tours are organised in New South Wales and Queensland.

Australian Elizabethan Trust

The Australian Elizabethan Theatre Trust presents drama, opera, ballet and puppetry throughout Australia. It receives annual grants from the Commonwealth Government, the State Governments and city councils and its income is supplemented by subscriptions from members and donations from business houses.

In the field of drama it has presented, *inter alia*, about 35 works of Australian playwrights since 1954, some of which were subsequently presented overseas. The Australian Ballet has visited all mainland capitals and New Zealand and has performed world premieres of ten commissioned ballets since 1964. The Australian Opera, formerly the Elizabethan Trust Opera Company, became independent of the Trust in 1969 but works in close alliance with it. It has presented overseas guest artists, conductors and producers, and since 1956 it has given more than 1,600 performances of forty operas in all States and the Australian Capital Territory. It is intended that other performing companies created by the Trust will eventually be autonomous, with the Trust acting as an entrepreneur. The Trust has also been associated with commercial managements in the presentation of overseas attractions and large-scale musicals.

In 1965 the Trust and Arts Council of Australia jointly formed the Marionette Theatre of Australia to promote puppetry. The Theatre now operates solely under Trust sponsorship.

Each year a number of special companies present Shakespeare and other curricular plays for schools in all States, and units of singers and dancers perform a similar educational function in bringing opera and ballet to school audiences.

The Trust is associated with the University of Melbourne in the Melbourne Theatre Company, with the University of New South Wales Drama Foundation in the Old Tote Theatre Company, and with the South Australian Theatre Company. Assistance is given to the Adelaide Festival of Arts, the Festival of Perth, the Perth Playhouse, the National Theatre and Fine Arts Society of Tasmania, and other companies. From a special commissioning fund the Trust commissions theatrical works in all major forms from Australian creative artists.

The Trust is associated with the University of New South Wales and the Australian Broadcasting Commission in maintaining the National Institute of Dramatic Art, which provides a training ground for young Australian actors, producers and technicians. The Australian Ballet School, maintained by the Trust in Melbourne, performs a similar function for selected ballet students.

Australian National Trusts

The Australian National Trusts were founded to further the preservation of lands, places, buildings, works, and articles which are of national importance by reason of educational, aesthetic, historic, architectural, artistic, scientific, cultural, or other special interest.

The first Australian National Trust, the National Trust of Australia (New South Wales), was formed in 1945. Since then National Trusts have been formed in each of the other States. The Trusts in New South Wales, Queensland, South Australia, and Western Australia have statutory authority, and those in Victoria and Tasmania are incorporated under the Companies Acts of their respective States. The Australian Council of National Trusts was incorporated in 1965 to co-ordinate the activities of the State National Trusts and represent them at the federal level and internationally.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout the Commonwealth is approximately 26,500. The Trusts are financed by members' subscriptions and donations from individuals and commercial and industrial organisations, the proceeds of charges for entry to Trust properties and the fund-raising activities of members, including inspections of historic houses. In some States the Trusts are subsidised by the State Governments.

The number of properties owned or controlled by the Trusts exceeds sixty. These include houses, natural reserves, a powder magazine, a police station, a gaol, two paddle steamers and a hulk, a joss house, and a garden. The Trusts have also established a register of buildings (totalling several thousand) which they consider should be preserved in the national interest because of their historical and or architectural significance.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 for the purpose of securing portraits of distinguished Australians who had taken an active part in Federation. Later the Committee decided to obtain portraits of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, and other notable Australians. In addition the Committee has commissioned paintings recording special events connected with the Commonwealth Parliament.

The Committee comprises the Prime Minister (Chairman), the President of the Senate, the Speaker of the House of Representatives, the Vice-President of the Executive Council, the Leader of the Opposition, and the Leader of the Opposition in the Senate. The Art Advisory Board, *see* below, assists the Committee by advising on portraits to be commissioned.

Commonwealth Art Advisory Board

The Art Advisory Board, which consists solely of artists, advises the Commonwealth Government an all artistic matters as well as assisting the Historical Memorials Committee. It also purchases works of art for the National Collection, for which $250,000 was provided in 1969–70. In addition, the Board is acquiring a collection of South-East Asian art and Melanesian artefacts which, together with the National Collection, will be housed in the proposed Australian National Gallery.

On behalf of the Government, the Board organises and finances exhibitions of Australian art in overseas countries and contributes towards the cost of exhibitions from overseas arranged by State Art Galleries. $60,000 was provided for this purpose in 1969–70.

SCIENTIFIC AND INDUSTRIAL RESEARCH IN AUSTRALIA

A special article on Science and Technology in Australia, prepared by the Commonwealth Scientific and Industrial Research Organization of Australia, was included in Year Book No. 49 (*see* page 781). A short account of the development of research in Australia and of the governmental and university organisations engaged in research was included in Year Book No. 53 (*see* pages 650–2).

The following is a brief description of the research activities of selected Commonwealth Government agencies and scientific societies.

Australian Industrial Research and Development Grants Board

To encourage industrial research and development in Australia the Government introduced the *Industrial Research and Development Grants Act* 1967. The legislation, administered by the Australian Industrial Research and Development Grants Board, provides for the payment of grants on a dollar for dollar basis to Australian manufacturing and mining companies for increased research and development expenditure.

Companies employing professional research staff are assisted in their own research and development, but the Act also provides for companies to contract research and development with approved research organisations.

The first grants to industry under this Act were made in 1968 and the Government provided $10.8 million for this purpose in 1969–70. Special taxation concessions also apply to expenditure on research and development.

Commonwealth Scientific and Industrial Research Organization

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is Australia's largest civil scientific body and now has a staff of about 6,200 including some 2,000 professional scientists. Its main function is to carry out scientific research for the primary and secondary industries of the Commonwealth and its Territories. It does not conduct defence research, medical research or atomic energy research. The other powers and functions of CSIRO as defined in the Science and Industry Research Act of 1949, include:

the training of scientific research workers and the awarding of scientific research studentships and fellowships;

the making of grants in aid of pure scientific research;

the recognition or establishment of associations of persons engaged in any industry, for the purposes of carrying out industrial scientific research and the co-operation with, and the making of grants to, such organisations;

the testing and standardisation of scientific apparatus and instruments and the carrying out of scientific investigation connected with standardisation;

the collection and dissemination of information relating to scientific and technical matters;

the publication of scientific and technical reports, periodicals and papers.

Organisation

CSIRO is a statutory corporation operating under its own Act of Parliament and exercising its powers subject to the regulations and the approval of the Minister for Education and Science.

The governing body of the Organization is the Executive, which is located in Canberra and consists of nine members appointed by the Governor-General. There are five full-time members, one of whom is chairman, and four part-time members. At least five of the members must possess scientific qualifications. The Executive is responsible to the Minister for the policy and the work of the Organization.

For carrying out its research work, CSIRO is divided into four major group laboratories and a number of Divisions and Sections. The four group laboratories are the Animal Research Laboratories comprising four Divisions, the Chemical Research Laboratories comprising five Divisions, the National Standards Laboratory comprising two Divisions, and the Wool Research Laboratories comprising three Divisions. There are also twenty-one independent Divisions in other research fields and an additional three independent Sections. The Head Office is in Melbourne but will transfer to Canberra in 1971. Regional administrative officers are located at Brisbane, Canberra, Melbourne, and Sydney. The Organization also maintains the Australian Scientific Liaison Office in London and the Office of the Scientific Attaché in Washington.

Since the Organization's activities are Commonwealth-wide and often involve extensive field work, a number of branch laboratories and field stations have been established in various parts of Australia.

The Organization's total budget for 1969–70 was about $53,600,000. Nearly four-fifths of this was provided by the Commonwealth Government, while much of the remainder was provided by trust funds which have been set up by various primary producer groups. The largest of these is the Wool Research Trust Fund, but the wheat, dairy, meat, and tobacco industries also contribute substantial amounts. The funds are derived from a levy on produce matched by a Government contribution.

Mount Stromlo and Siding Spring Observatories

Mount Stromlo Observatory and Siding Spring Observatory are the two astronomical research stations of the Research School of Physical Sciences, Australian National University. The staff of the observatories are academic staff of the University's Institute of Advanced Studies. The permanent headquarters of the observatories are located at Mount Stromlo, together with the library, laboratories and offices of the scientific staff. The older telescopes are located on Mount Stromlo, the newer ones on Siding Spring Mountain. At Siding Spring there is a lodge to house the astronomers, permanently based at Mount Stromlo, who visit for short periods to make observations there.

The observatories constitute the principal centre of optical astronomical research in the southern hemisphere. Their research facilities are second only to the great observatories of the south-western United States, and because of their geographical latitude observations can be made on parts of the sky permanently inaccessible to northern astronomers. The functions of the observatories are to carry out original investigations (both observational and theoretical) in astronomy and astrophysics, and to provide post-graduate training for future Australian astronomers.

The direction of the researches conducted depends on the steadily widening interests of the staff and scholars as the subject of astronomy itself rapidly progresses. Areas of permanent interest to which the observatories have made important contributions include the evolution of stars and of stellar systems, the study of the Magellanic clouds and their globular star clusters, the chemical composition of the stars and the study of pulsating stars. The results of the work carried out at the observatories are published in international scientific periodicals, principally in the *Monthly Notices of the Royal Astronomical Society* and the *Astrophysical Journal.*

Mount Stromlo Observatory is situated at 35° 19′ 16″ south latitude and 149° east longitude at an altitude of 2,560 feet. It is on the summit of a ridge of low hills in the Australian Capital Territory seven miles west of the city of Canberra. The first regular scientific work was started at this site in 1925, and the Observatory was incorporated in the Australian National University in 1957. The main instruments are 30-inch, 50-inch and 74-inch reflecting telescopes and associated spectrographs, photometers and spectral scanners.

Siding Spring Observatory was established in 1965. It is located at 31° 16′ south latitude and 148° 41′ east longtitude at an altitude of 3,820 feet and occupies the summit of Siding Spring Mountain in the Warrumbungle Ranges, near Coonabarabran, New South Wales. This site has one of the best climates for astronomical research to be found anywhere in Australia—considerably better than that at Mount Stromlo. The instruments at present operating at Siding Spring Observatory include a 40-inch and a 24-inch reflector. Work is proceeding on the installation of a 150-inch reflecting telescope due for completion in 1973. The project is being jointly funded by the Department of Education and Science and the United Kingdom Government.

Australian Atomic Energy Commission

Functions of the Commission

The Australian Atomic Energy Commission is a statutory corporation which functions under the direction of the Minister for National Development. It consists of five members. The Commission is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. It is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research, and generally fostering the advancement of atomic energy technology. A detailed description of its activities is contained on pages 560–562 of Year Book No. 55.

Nuclear Power

In October 1969 the Commonwealth Government announced a proposal to build a nuclear power station of 500 megawatt capacity at Jervis Bay, on the New South Wales south coast, by 1975, subject to a satisfactory tender. This followed discussions early in 1969 between the Commonwealth and all State Governments.

The project will be undertaken in collaboration with the Government of New South Wales and its Electricity Commission. The station is to be financed and owned by the Commonwealth, and the power will be supplied to the State electricity network. New South Wales is being asked to guarantee the long-term power requirements of the Australian Capital Territory. The Commonwealth will supply the fuel and retain the spent fuel.

A detailed programme of enviromental surveys, including meteorology, tides, currents and marine life, is being undertaken to ensure that the power station causes the minimum of disturbance to the environment.

Associated training and research organisations

The Australian Institute of Nuclear Science and Engineering comprises the Australian Atomic Energy Commission and Australian universities. The Institute's operations are financed by membership subscriptions and a Commonwealth Government grant which amounted to $150,000 in 1968–69. The purpose of the Institute is to stimulate research and training in nuclear science and engineering within the universities and to arrange access for university research workers to the highly specialised equipment at the A.A.E.C. Research Establishment.

The Australian School of Nuclear Technology is jointly sponsored by the Commission and the University of New South Wales. Courses are being offered in nuclear technology, production and use of radioisotopes, radiological safety, health physics, and other related topics.

Scientific societies

Royal Societies

The following table contains the latest available statistical information about the Royal Societies in each State and in the Australian Capital Territory.

ROYAL SOCIETIES, DECEMBER 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*
Year of charter	1866	1859	1884	1880	1913	1844	1930
Number of members	375	580	278	285	248	569	152
Volumes of transactions issued(*a*)	102	83	80	93	58	103	..
Number of books in library	33,585	33,000	71,954	25,000	7,820	37,000	..
Societies on exchange list.	395	336	301	362	245	317	..

(*a*) Cumulative total

Australian Academy of Science

The Australian Academy of Science is the national institution representing science in Australia. Constituted by Royal Charter in 1954, the Academy promotes scientific knowledge and research, maintains standards of scientific endeavour and achievement in the natural sciences in Australia, and recognises outstanding contributions to the advancement of science. The Academy represents Australian science and scientists at the national and international level, co-ordinates Australian contributions to international co-operative scientific ventures, organises meetings of scientists, holds symposia, and arranges for visits of scientists from other countries to Australia. It also administers research fellowships provided by industry.

Its Fellows (designated F.A.A.) are eminent in some branch of the physical or biological sciences in Australia, occupying professional positions in universities, the Commonwealth Scientific and Industrial Research Organization, other research organisations, and industry. A few places are reserved for Fellows who have rendered conspicuous service in the cause of science. No more than seven new Fellows are elected in any one year. Its present membership is about 130 Fellows.

The Academy is financed by general purpose grants from the Commonwealth Government and considerable private benefactions. In 1969–70 the Academy received from the Government $180,300, including $55,300 for the International Biological Programme. The Academy is managed by an elected council comprising a president, treasurer, three secretaries and ten ordinary members who are drawn equally from the physical sciences and biological sciences. Chief administrative officer is the Executive Secretary, who is not a Fellow. Its conference centre is in Canberra.

Australian and New Zealand Association for the Advancement of Science (ANZAAS)

This Association was founded in 1887. Its objects are 'the advancement of science and scholarship through the connection of knowledge and the promotion of a spirit of co-operation among scientific workers, scholars and those in sympathy with science and scholarship generally, especially in Australia, New Zealand and the Australian Territories'. The 42nd ANZAAS Congress was held in Port Moresby on 17 to 21 August 1970, and the 43rd Congress will be held in Brisbane, 24 to 28 May 1971.

The ANZAAS Central Office is in Sydney and Divisions operate in New South Wales, South Australia and Western Australia.

Other scientific societies

The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874 for 'the cultivation and study of the science of natural history in all its branches'. The Society publishes proceedings, maintains a library, and offers research fellowships. Ninety-three volumes of proceedings have been issued and the library has some 19,000 volumes. The Linnean Macleay Fellowship for research in natural history is offered annually to graduates of the University of Sydney who are members of the Society and resident in New South Wales. The membership at the end of 1969 was 305.

The British Astronomical Society has a branch in Sydney and there are more than 200 other learned societies devoted to the study of particular sciences. Some of these, including the Royal Australian Chemical Institute and the Institution of Engineers, Australia, are qualifying bodies, admission to which is by qualification only. Other, such as the Institute of Food Technologists, are open to any interested person. Some societies, such as the Australian Biochemical Society, have annual symposia of a very high standard. A great many of these bodies publish appropriate journals.

CHAPTER 21

EMPLOYMENT AND UNEMPLOYMENT

Further detail on subjects dealt with in this chapter is contained in the *Labour Report* and other publications of this Bureau. For subjects relating to population censuses reference should be made to the series of mimeographed and printed publications listed in the chapter Miscellaneous of this Year Book. Detailed information on the labour force and on employment and unemployment is contained in mimeographed bulletins *The Labour Force* and *Employment and Unemployment*. Current information is also available in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Quarterly Summary of Australian Statistics*, and preliminary employment estimates are issued in a monthly statement *Employed Wage and Salary Earners*.

THE LABOUR FORCE

This chapter contains a number of series relating to the labour force and its components. The labour force comprises two categories of persons: those who are employed and those who are unemployed. In the first category are included employers, self-employed persons, wage and salary earners, and unpaid helpers. Comprehensive details for each State and Territory and for Australia as a whole in respect of persons in the labour force, classified according to industry, occupation and occupational status (i.e. whether employers, self-employed persons, wage and salary earners or unpaid helpers) and personal characteristics such as age, sex, marital status and birthplace, are obtained only at a general census of population. Information about the labour force questions in the population census of June 1966 and a table showing the industry and occupational status of the labour force are given on pages 691–3.

In the periods between population censuses, estimates of the labour force for the whole of Australia are obtained through the population survey, which is carried out by means of personal interviews at a one per cent sample of households throughout Australia in February, May, August and November each year, *see* pages 694–700. The survey provides, in addition to particulars of the demographic composition of the labour force, broad estimates of occupational status, occupation, industry and hours of work.

Detailed industry estimates for each State and Territory are obtained only in respect of wage and salary earners, through a monthly collection from employers. These estimates, which exclude employees in agriculture and private domestic service, are based on benchmarks derived from the population census, but they do not agree exactly with census figures at relevant dates because of a different method of allocating employees to industries. Further information about estimates of employed wage and salary earners is given on pages 700–4.

The population census*

A new definition of the labour force† was adopted at the 1966 census, which conformed closely to the recommendations of the Eighth International Conference of Labour Statisticians, held in Geneva in 1954. At the census the following questions were asked.

16. 'Did the person have a job or business of any kind last week (even though he may have been temporarily absent from it)? ANSWER "YES" or "NO".'
17. 'Did the person do any work at all last week for payment or profit? ANSWER "YES" or "NO". Persons working without pay as a helper in a "family business" or farm and members of the clergy and of religious orders (other than purely contemplative orders) should answer "YES" to this question. Persons doing only unpaid housework should answer "NO".'
18. 'Was the person temporarily laid off by his employer without pay for the whole of last week? ANSWER "YES" or "NO".'

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* Particulars of Aborigines are not included in the table on page 693. *See* page 121, Chapter 7, Population. † The term 'work force' has been used in 1966 census publications and has the same meaning as the term 'labour force'.

19. 'Did the person look for work last week? ANSWER "YES" or "NO". (*Note.* "Looking for work" means (i) being registered with Commonwealth Employment Service, or (ii) approaching prospective employers, or (iii) placing or answering advertisements, or (iv) writing letters of application, or (v) awaiting the result of recent applications).'

The labour force includes all persons for whom the answer 'yes' was given to any one of these four questions, except that persons helping but not receiving wages or a salary who usually worked less than fifteen hours a week were excluded from the labour force. Persons under fifteen years of age were also excluded by definition from the labour force.

Persons in the labour force were classified into two categories: those employed and those unemployed. A person was considered to be unemployed if he answered the above questions in any one of the following ways.

Question No.	*In labour force—Unemployed*				
16.	No	No	No	Yes	Yes
17.	No	No	No	No	No
18.	No	Yes	Yes	Yes	Yes
19.	Yes	No	Yes	No	Yes

The net effect of the new definition was to include approximately 108,000 additional persons in the Australian labour force, i.e. a proportionate increase of approximately 2.3 per cent. The major factor in this change was females working part-time (sometimes for only a few hours a week), some of whom, at earlier censuses, did not consider themselves as '. . . engaged in an industry, business, profession, trade or service.'

Industry and occupational status of the labour force

At the 1966 census persons in the labour force were asked to state industry in accordance with the following instructions.

'State the exact branch of industry, business or service in which mainly engaged last week, using two or more words where possible. For example, "Dairy Farming", "Coal Mining", "Woollen Mills", "Retail Grocery", "Road Construction", etc. Employees should state the industry of their employer. For example, a carpenter employed by a coal mining company should state "Coal Mining". If employed by a Government Department or other public body, state also its name. For paid housekeepers and domestic servants in private households, write "P.H.".'

From the answers to this question, persons were classified according to the Bureau's *Classification of Industries*, which provides for each person to be classified according to the nature of the business in which mainly engaged, regardless of whether operated by a government authority, corporation, or individual.

Males and females in the labour force at the 1966 census are classified in the following table according to industry and occupational status. Only the major industry groups are shown; particulars for each sub-group are available in the mimeographed 1966 Census Bulletin No. 9.6, *Population: By Industry and Occupational Status, Australia* and in the corresponding bulletin for each State and Territory. Persons in the labour force in each industry sub-group were shown for Australia on pages 1117–19 of Year Book No. 55.

LABOUR FORCE, BY INDUSTRY AND OCCUPATIONAL STATUS: AUSTRALIA, CENSUS 30 JUNE 1966

Industry (major group)	*Employed*							
	Employer	*Self-employed*	*Employee (on wage or salary)*	*Helper (not on wage or salary)*	***Total***	*Unemployed*	*Total in the labour force*	*Proportion of total (per cent)*
				MALES				
Primary production	74,684	156,171	138,337	8,085	377,277	4,065	381.342	11.14
Mining and quarrying	500	1,600	51,424	66	53,590	437	54,027	1.58
Manufacturing	26,073	20,629	934,120	820	981,642	6,935	988,577	28.89
Electricity, gas, water and sanitary services (production, supply and maintenance)	275	232	97,968	75	98,550	365	98,915	2.89
Building and construction	33,649	39,479	334,191	447	407,766	5,812	413,578	12.09
Transport and storage	11,906	25,700	213,040	251	250,897	1,926	252,823	7.39
Communication	..	5	80,163	46	80,214	246	80,460	2.35
Finance and property	4,358	6,633	95,895	142	107,028	334	107,362	3.14
Commerce	56,144	39,978	379,170	957	476,249	3,243	479,492	14.01
Public authority (n.e.i.) and defence services	..	..	162,990	3	162,993	418	163,411	4.78
Community and business services (including professional)	22,658	7,734	198,531	1,223	230,146	819	230,965	6.75
Amusement, hotels and other accommodation, cafes, personal service, etc.	19,374	16,289	88,029	552	124,244	1,458	125,702	3.67
Other industries	6	15	67	..	88	4	92	0.00
Industry inadequately described or not stated	764	1,343	23,193	381	25,681	19,387	45,068	1.32
Total males in labour force	**250,391**	**315,808**	**2,797,118**	**13.048**	**3,376,365**	**45,449**	**3,421,814**	**100.00**
				FEMALES				
Primary production	12,747	21,747	24,274	16 108	74,876	433	75,309	5.25
Mining and quarrying	40	54	2,193	19	2,306	10	2,316	0.16
Manufacturing	5,333	5,056	308,952	1,151	320,492	3,056	323,548	22.55
Electricity, gas, water and sanitary services (production, supply and maintenance)	31	10	7,039	10	7,090	31	7,121	0.50
Building and construction	2,296	846	11,253	566	14 961	90	15,051	1.05
Transport and storage	1,431	1,321	21,878	468	25,098	166	25,264	1.76
Communication	2	4	22,957	49	23,012	177	23,189	1.62
Finance and property	674	1,474	70.125	225	72,498	361	72,859	5.08
Commerce	21,367	20.330	257,748	4,332	303,777	2,589	306,366	21.35
Public authority (n.e.i.) and defence services	..	..	46,365	4	46,369	273	46,642	3.25
Community and business services (including professional)	2,929	5,389	301,888	3,236	313,442	2,575	316,017	22.03
Amusement, hotels and other accommodation, cafes, personal service, etc.	12,835	11,067	139,833	3,001	166,736	2,431	169,167	11.79
Other industries	..	2	26	..	28	7	35	0.00
Industry inadequately described or not stated	536	1 119	26,911	3,148	31,714	20,043	51,757	3.61
Total females in labour force	**60,221**	**68,419**	**1,241,442**	**32,317**	**1,402,399**	**32,242**	**1,434,641**	**100.00**
				PERSONS				
Primary production	87,431	177,918	162,611	24,193	452,153	4,498	456,651	9.40
Mining and quarrying	540	1,654	53,617	85	55,896	447	56,343	1.16
Manufacturing	31,406	25,685	1,243,072	1,971	1,302,134	9,991	1,312,125	27.02
Electricity, gas, water and sanitary services (production, supply and maintenance)	306	242	105,007	85	105,640	396	106,036	2.18
Building and construction	35,945	40,325	345.444	1,013	422,727	5,902	428,629	8.83
Transport and storage	13,337	27,021	234,918	719	275,995	2,092	278,087	5.73
Communication	2	9	103,120	95	103,226	423	103,649	2.13
Finance and property	5,032	8,107	166,020	367	179,526	695	180,221	3.71
Commerce	77,511	60,308	636,918	5,289	780,026	5,832	785,858	16.18
Public authority (n.e.i.) and defence services	..	..	209,355	7	209,362	691	210,053	4.33
Community and business services (including professional)	25,587	13,123	500,419	4,459	543,588	3,394	546,982	11.26
Amusement, hotels and other accommodation, cafes, personal service, etc.	32,209	27,356	227,862	3,553	290,980	3,889	294,869	6.07
Other industries	6	17	93	..	116	11	127	0.00
Industry inadequately described or not stated	1,300	2,462	50,104	3,529	57,395	39,430	96,825	1.99
Total persons in labour force	**310,612**	384.227	4.038,560	45,365	4,778,764	**77,691**	**4,856,455**	**100.00**

The population survey

The population survey is the general title given to the household sample survey carried out in February, May, August and November of each year in all States and Territories. Emphasis in the survey is placed on the collection of data on demographic and labour force characteristics, the principal survey component being referred to as the labour force survey. The remaining part of the population survey consists of supplementary collections which are carried out from time to time in conjunction with the labour force survey.

The population survey was instituted in November 1960 in the six State capital cities, and was extended to include non-metropolitan areas as from February 1964. About 38,000 households, representing one per cent of all households, are selected by area sampling methods and enumerated each quarter, the information being obtained by carefully chosen and specially trained interviewers during a four-week period on each occasion.

A description of the labour force survey and a selection of principal statistics obtained from it are given in this section. Data from supplementary surveys are published in mimeographed bulletins which are available on request. Results of the surveys Leavers from Schools, Universities or Other Educational Institutions, and Multiple Jobholding, were given in Year Book No. 54, pages 1162–6. More recent surveys, results of which are included in this issue, include Chronic Illnesses, Injuries and Impairments, May 1968 (*see* Appendix); Post-school Study Courses, August 1968 (*see* Chapter 20, Education, Cultural Activities, and Research); and Child Care, May 1969 (*see* pages 705–8).

The labour force survey

The labour force survey commenced in November 1960, and until November 1963 it was confined to the six State capital cities. The first survey for the whole of Australia was carried out in February 1964. Quarterly estimates of the civilian labour force in the six capital cities were published regularly in the mimeographed bulletin *Employment and Unemployment*, and covered the period November 1960 to May 1968. Thereafter they were discontinued. The first estimates covering the whole of Australia appeared in a mimeographed bulletin *The Labour Force, August* 1966 *to February* 1969. More comprehensive statistics of the labour force have been published in two bulletins *The Labour Force*, 1964 *to* 1968 and *The Labour Force*, 1969.

The survey includes all persons fifteen years of age and over (including full-blood Aborigines), except members of the permanent armed forces, national servicemen enlisted in the Regular Army Supplement and certain diplomatic personnel customarily excluded from census and estimated populations.

The classification used in the survey conforms closely to that recommended by the Eighth International Conference of Labour Statisticians held in Geneva in 1954. In this classification, the labour force category to which an individual is assigned depends on his actual activity (i.e. whether working, looking for work, etc.) during a specified week, known as 'survey week', which is the week immediately preceding that in which the interview takes place. The interviews are carried out during a period of four weeks, so that there are four survey weeks in each of the months to which the survey relates. These survey weeks generally fall within the limits of the calendar month.

A person's activity during survey week is determined from answers given to a set of questions specially designed for this purpose. The principal categories appearing in the tables in this section are the employed and unemployed, who together constitute the labour force, and the remainder, who are classified as not in the labour force. Definitions of these categories are as follows:

(i) *The labour force* comprises all persons who, during survey week, were employed or unemployed as defined in (ii) and (iii) below.

(ii) *Employed persons* comprise all those who, during survey week,
  (*a*) did any work for pay, profit, commission or payment in kind, in a job or business, or on a farm (including employees, employers and self-employed persons), or
  (*b*) worked fifteen hours or more without pay in a family business (or farm), or
  (*c*) had a job, business or farm, but were not at work because of illness, accident, leave, holiday or industrial dispute; or because of production hold-up due to bad weather, plant breakdown, etc.

A person who had a job but was temporarily laid off by his employer for the whole week without pay is excluded, and is classified in the tables as unemployed. A person who did some work during the week, however, before he either lost his job or was laid off, is classified as employed. A person who held more than one job is counted only once, in the job at which he worked most hours during survey week.

(iii) *Unemployed persons* comprise all those who, during survey week, did no work at all, and who either,

- (*a*) did not have a job or business and were actively looking for work (including those who stated that they would have looked for work if they had not been temporarily ill or believed no work was available, or had not already made definite arrangements to start work in a new job after survey week), or
- (*b*) were laid off from their jobs without pay for the whole week.

A person who either lost his job or was laid off *during* survey week, but did some work at his job during that week, is classified as employed.

(iv) *Persons not in the labour force* are all those who, during survey week, were not in the categories 'employed' or 'unemployed' as defined. This category therefore includes persons without a job, business or farm who were not actively looking for work, and who, during survey week, were either keeping house (unpaid), attending school, university, etc., retired or voluntarily idle, permanently unable to work or inmates of institutions. A person who worked less than fifteen hours without pay in a family business during survey week is also classified as not in the labour force.

Figures of total population fifteen years of age and over for each sex are derived from the official population estimates, which in turn are based on the census of June 1966. Figures of marital status and all labour force characteristics of these populations are derived from the sample survey data. For this and other reasons, including differences in timing, methods of collection (personal interview in the survey, self-enumeration in the census) and, in some cases, concepts and definitions, the survey estimates of marital status and labour force characteristics for May 1966 may not agree closely with the corresponding census figures for June 1966.

Reliability of the estimates

Since the estimates which appear in the following tables are based on a sample, they may differ from the figures that would have been obtained from a complete census using the same questionnaires and procedures. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample, and not the whole population, was enumerated. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors.

Space does not allow for the separate indication of the standard errors of all estimates in this section. A table of standard errors which is intended to be of general application is therefore given below (Table A), and approximate standard errors of estimates of the total number of persons in Australia in each of the principal employment status categories, classified by sex only, in Table B.

The standard errors in these tables are averages based on calculations for a limited number of surveys and are also averages over a wide range of labour force characteristics. These figures thus give not a precise measure but an indication of the magnitude of the standard error of any particular estimate for any particular survey. An example of the use of Table A is as follows: if the estimate obtained from the sample is 100,000 and the standard error is 3 per cent of the estimate, i.e. 3,000, there are about two chances in three that the true figure is within the range 97,000 to 103,000 and about nineteen chances in twenty that this figure is within the range 94,000 to 106,000.

TABLE A
STANDARD ERRORS OF QUARTERLY ESTIMATES

	Approximate standard error of estimates	
Size of estimate (persons)	*Persons*	*Percentage of estimate*
4,000	750	19
5,000	850	17
10,000	1,100	11
20,000	1,400	7
50,000	2,000	4
100,000	3,000	3
200,000	4,000	2
500,000	5,000	1
1,000,000	5,500	0.6
2,000,000	8,000	0.4

TABLE B

STANDARD ERRORS OF PRINCIPAL EMPLOYMENT STATUS CATEGORIES

	Approximate standard error of estimates					
	Males		*Females*		*Persons*	
Category	*'000*	*Per cent*	*'000*	*Per cent*	*'000*	*Per cent*
Employed—						
Agriculture . . .	12	3.2	3	6.3	14	3.2
Other industries. . .	8	0.3	10	0.7	12	0.3
Total	*8*	*0.2*	*10*	*0.7*	*12*	*0.3*
Unemployed	2	6.1	2	5.7	3	4.4
Labour force . . .	7	0.2	10	0.7	12	0.3
Not in the labour force . .	7	1.1	10	0.4	12	0.4

It should be noted that the standard errors of estimates relating to agricultural employment are generally somewhat higher than the standard errors of other estimates of the same magnitude. Estimates for females also tend to have higher standard errors relative to estimates of equivalent size for males in similar employment categories.

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the percentage and the size of the denominator. Percentages quoted in the following tables, and any other percentages calculated from figures shown, have generally somewhat lower proportional standard errors than have the estimates which form the numerators of the percentages, particularly where the percentages are large.

As the standard errors in Table A show, the smaller the estimate the higher is the relative standard error. Very small estimates would thus be subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In the following tables, estimates less than 4,000 have not been shown. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by interviewers and respondents. Inaccuracies of this kind are referred to as the non-sampling error, and they may occur in any enumeration, whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures.

CIVILIAN POPULATION 15 YEARS OF AGE AND OVER(a) BY EMPLOYMENT STATUS: AUSTRALIA

	Employed(b)			*Unemployed(b)*		*Total labour force(b)*			
May—	*Agri-culture ('000)*	*Other industries ('000)*	*Total ('000)*	*Number ('000)*	*Per cent of labour force*	*Number ('000)*	*Per cent of popu-lation(c)*	*Not in labour force(b) ('000)*	*Civilian population aged 15 and over (a) ('000)*
				MALES					
1966 .	370.9	2,980.9	3,351.8	32.9	1.0	3,384.6	84.2	635.9	4,020.5
1967 .	369.8	3,023.6	3,393 4	40.0	1.2	3,433.4	83.6	671.2	4,104.6
1968 .	362.0	3,097.1	3.459.1	37.7	1.1	3,496.8	83.4	698.5	4,195.3
1969 .	361.9	3,182.5	3,544.4	35.4	1.0	3,579.8	83.3	715.1	4,294.9
1970 .	371.1	3,259.7	3,630.8	33.9	0.9	3,664.7	83.4	731.5	4,396.2
				MARRIED WOMEN					
1966 .	40.1	659.4	699.4	16.6	2.3	716.0	27.0	1,936.8	2,652.8
1967 .	43.7	715.5	759.2	20.6	2.6	779.7	28.8	1,931.8	2,711.5
1968 .	41.2	776.6	817.7	21.6	2.6	839.3	30.2	1,940.2	2,779.6
1969 .	41.3	835.2	876.6	23.2	2.6	899.7	31.4	1,964.0	2,863.7
1970 .	51.8	910.7	962.5	22.0	2.2	984.5	33.5	1,958.4	2,943.0

For footnotes *see* next page.

CIVILIAN POPULATION 15 YEARS OF AGE AND OVER(*a*) BY EMPLOYMENT STATUS: AUSTRALIA—*continued*

May—	*Employed(b)* Agri-culture ('000)	Other industries ('000)	Total ('000)	*Unemployed(b)* Number ('000)	Per cent of labour force	*Total labour force(b)* Number ('000)	Per cent of popu-lation(c)	Not in labour force(b) ('000)	Civilian population aged 15 and over (a) ('000)
				OTHER FEMALES(*d*)					
1966 .	14.3	672.2	686.4	15.9	2.3	702.4	49.7	710.9	1,413.3
1967 .	11.9	691.2	703.1	18.2	2.5	721.3	49.6	733.0	1,454.4
1968 .	11.9	696.5	708.4	19.3	2.6	727.6	49.2	750.3	1,477.9
1969 .	11.8	689.6	701.4	16.5	2.3	717.9	48.1	774.5	1,492.4
1970 .	15.0	705.9	720.9	15.6	2.1	736.5	48.6	778.3	1,514.8
				ALL FEMALES					
1966 .	54.3	1,331.6	1,385.9	32.5	2.3	1,418.4	34.9	2,647.7	4,066.1
1967 .	55.6	1,406.7	1,462.3	38.8	2.6	1,501.1	36.0	2,664.8	4,165.9
1968 .	53.1	1,473.0	1,526.1	40.9	2.6	1,567.0	36.8	2,690.5	4,257.5
1969 .	53.1	1,524.9	1,578.0	39.7	2.5	1,617.6	37.1	2,738.5	4,356.1
1970 .	66.8	1,616.5	1,683.4	37.7	2.2	1,721.1	38.6	2,736.7	4,457.8
				PERSONS					
1966 .	425.2	4,312.4	4,737.6	65.4	1.4	4,803.0	59.4	3,283.6	8,086.6
1967 .	425.4	4,430.2	4,855.7	78.8	1.6	4,934.4	59.7	3,336.1	8,270.5
1968 .	415.1	4,570.1	4,985.2	78.5	1.6	5,063.7	59.9	3,389.1	8,452.8
1969 .	415.0	4,707.4	5,122.4	75.1	1.4	5,197.4	60.1	3,453.6	8,651.0
1970 .	438.0	4,876.2	5,314.2	71.5	1.3	5,385.8	60.8	3,468.2	8,854.0

(*a*) For a note on persons excluded *see* explanatory notes on page 694. (*b*) For definitions *see* page 694. (*c*) The labour force in each group as a percentage of the civilian population aged 15 years and over in the same group (labour force participation rate). (*d*) Never married, widowed and divorced.

CIVILIAN LABOUR FORCE(*a*), BY AGE AND MARITAL STATUS AUSTRALIA, MAY 1970

Age group (years)	*Married* Males	Females	Persons	*Not married(b)* Males	Females	Persons	*Total* Males	Females	Persons
				NUMBER ('000)					
15–19 . .	6.1	17.1	23.3	334.6	299.6	634.3	340.7	316.8	657.5
20–24 . .	175.7	146.4	322.0	312.1	181.6	493.7	487.7	328.0	815.7
25–34 . .	661.6	251.8	913.4	162.9	78.4	241.3	824.4	330.3	1,154.7
35–44 . .	680.9	269.5	950.4	78.7	46.8	125.5	759.6	316.3	1,075.9
45–54 . .	604.7	219.5	824.3	76.6	63.6	140.2	681.3	283.1	964.4
55–59 . .	244.9	54.6	299.5	32.7	33.6	66.3	277.7	88.1	365.8
60–64 . .	168.3	18.9	187.3	24.0	17.8	41.9	192.3	36.8	229.1
65 and over .	80.5	6.7	87.2	20.3	15.0	35.4	100.9	21.7	122.6
Total .	**2,622.8**	**984.5**	**3,607.4**	**1,041.9**	**736.5**	**1,778.4**	**3,664.7**	**1,721.1**	**5,385.8**
				PER CENT OF POPULATION(*c*)					
15–19 . .	93.5	37.2	44.2	61.0	60.5	60.8	61.4	58.5	60.0
20–24 . .	98.2	45.6	64.4	89.8	90.5	90.1	92.7	62.9	77.8
25–34 . .	98.8	35.6	66.3	93.2	84.8	90.3	97.6	41.3	70.2
35–44 . .	98.6	40.5	70.1	89.7	73.9	83.1	97.6	43.4	71.4
45–54 . .	96.9	36.8	67.5	88.7	61.4	73.8	95.9	40.4	68.4
55–59 . .	93.4	23.6	60.7	79.7	44.6	57.0	91.5	28.7	60.0
60–64 . .	81.4	11.6	50.7	66.5	21.1	34.7	79.2	14.9	46.8
65 and over .	32.7	3.2	16.8	15.9	3.8	6.7	23.2	3.6	11.7
Total .	**89.0**	**33.5**	**61.3**	**71.8**	**48.6**	**60.0**	**83.4**	**38.6**	**60.8**

(*a*) Aged 15 years and over. For definitions *see* page 694. (*b*) Never married, widowed and divorced. (*c*) The labour force in each group as a percentage of the civilian population in the same group.

CIVILIAN LABOUR FORCE(*a*), BY INDUSTRY: AUSTRALIA, MAY 1970

('000)

Industry group	*Males*	*Females*	*Persons*
Agriculture	375.0	67.3	442.4
Manufacturing	1,060.3	361.3	1,421.9
Building and construction	452.4	23.3	475.8
Transport and storage	262.8	31.0	293.8
Finance and property	133.0	99.1	232.2
Commerce	528.7	396.5	925.2
Community and business services(*b*)	277.1	414.0	691.1
Amusement, hotels, personal service, etc.	142.1	220.3	362.4
Other industries	431.4	103.7	535.1
No previous work experience(*c*)	*	4.2	5.9
Total	**3,664.7**	**1,721.1**	**5,385.8**

(*a*) Aged 15 years and over. For definitions *see* page 694. (*b*) Comprises law, order and public safety; religion and social welfare; health, hospitals, etc.; education; and other community and business services (including professional). (*c*) Looking for first job.
* *See* footnote *, page 700.

CIVILIAN LABOUR FORCE(*a*), BY OCCUPATION: AUSTRALIA, MAY 1970

('000)

Occupation group	*Males*	*Females*	*Persons*
Professional, technical and related workers	341.3	234.1	575.4
Administrative, executive and managerial workers	296.0	39.8	335.9
Clerical workers	330.7	562.4	893.1
Sales workers	209.7	226.6	436.3
Farmers, fishermen, timber getters, etc.	416.7	61.1	477.8
Transport and communication workers	276.3	40.8	317.0
Craftsmen, production-process workers and labourers, n.e.c.(*b*)	1,632.9	255.0	1,887.9
Service, sport and recreation workers	159.3	297.1	456.4
No previous work experience(*c*)	*	4.2	5.9
Total	**3,664.7**	**1,721.1**	**5,385.8**

(*a*) Aged 15 years and over. For definitions *see* page 694. (*b*) Includes miners, quarrymen and related workers. (*c*) Looking for first job.
* *See* footnote *, page 700.

EMPLOYED PERSONS(*a*), BY HOURS WORKED(*b*): AUSTRALIA

('000)

May	*Hours worked during survey week*							*Total*	*Average hours worked(d)*
	0(c)	*1–29*	*30–34*	*35–39*	*40*	*41–48*	*49 and over*		
MALES									
1966	175.3	129.8	101.1	209.6	1,608.8	457.1	670.2	3,351.8	41.5
1967	175.4	127.5	108.4	243.3	1,624.5	462.4	651.8	3,393.4	41.2
1968	188.7	142.6	111.9	256.8	1,613.8	489.6	655.7	3,459.1	41.0
1969	194.1	167.5	227.3	282.8	1,474.0	504.1	694.6	3,544.4	40.8
1970	217.3	165.3	157.0	320.6	1,449.3	547.1	774.3	3,630.8	41.2
MARRIED WOMEN									
1966	48.0	188.7	47.4	64.7	270.6	31.5	48.6	699.4	31.7
1967	50.9	203.1	54.5	76.8	291.8	35.9	46.2	759.2	31.6
1968	55.9	226.8	58.4	84.7	307.2	38.8	46.0	817.7	31.1
1969	63.4	256.8	85.8	95.7	286.7	41.6	46.6	876.6	30.2
1970	68.4	285.0	68.7	121.6	311.0	51.6	56.2	962.5	30.6

For footnotes *see* next page.

EMPLOYED PERSONS(a), BY HOURS WORKED(b): AUSTRALIA—*continued*

('000)

May	Hours worked during survey week: 0(c)	1–29	30–34	35–39	40	41–48	49 and over	Total	Average hours worked(d)
				OTHER FEMALES(e)					
1966 . .	41.2	57.2	38.8	114.2	357.2	47.4	30.4	686.4	35.9
1967 . .	42.5	59.8	36.3	130.2	358.9	45.6	29.7	703.1	35.7
1968 . .	42.8	65.8	42.6	135.7	348.2	46.7	26.6	708.4	35.2
1969 . .	41.1	68.2	53.7	141.0	325.4	48.5	23.5	701.4	34.9
1970 . .	51.2	72.9	43.6	153.7	315.9	56.2	27.4	720.9	34.5
				ALL FEMALES					
1966 . .	89.2	245.9	86.2	178.9	627.9	78.9	79.0	1,385.9	33.7
1967 . .	93.4	262.9	90.8	207.0	650.7	81.5	75.9	1,462.3	33.5
1968 . .	98.7	292.6	100.9	220.4	655.4	85.4	72.5	1,526.1	33.0
1969 . .	104.5	325.0	139.4	236.8	612.1	90.0	70.1	1,578.0	32.3
1970 . .	119.7	357.8	112.3	275.3	626.9	107.8	83.6	1,683.4	32.2
				PERSONS					
1966 . .	264.5	375.7	187.3	388.4	2,236.6	536.0	749.2	4,737.6	39.2
1967 . .	268.8	390.4	199.2	450.3	2,275.2	543.9	727.7	4,855.7	38.9
1968 . .	287.4	435.3	212.8	477.2	2,269.2	575.0	728.3	4,985.2	38.6
1969 . .	298.6	492.5	366.7	519.6	2,086.1	594.1	764.7	5,122.4	38.2
1970 . .	336.9	523.1	269.3	595.9	2,076.2	654.9	857.9	5,314.2	38.3

(a) Civilians 15 years of age and over. For definitions *see* page 694. (b) Actual hours worked during survey week, not hours paid for. The figures may be affected by public holidays, leave, absenteeism; temporary absence from work due to sickness, accidents, and industrial disputes; and work stoppages due to bad weather, plant breakdown, etc. (c) Excludes persons laid off for the whole of survey week without pay; these persons are classified as unemployed. (d) Persons with jobs who did not work during survey week have been included in the calculation of average hours worked. (e) Never married, widowed and divorced.

EMPLOYED PERSONS(a) WHO WORKED LESS THAN 35 HOURS(b) BY REASON: AUSTRALIA

('000)

May—	Usually work 35 hours or more: Reason for working less than 35 hours: Leave or holiday	Own illness or injury	Other reasons	Total	Usually work less than 35 hours: Reason for working less than 35 hours: Lack of work	Other reasons	Total
				MALES			
1966 . . .	174.6	82.1	32.4	289.0	8.1	109.0	117.1
1967 . . .	177.5	81.6	27.5	286.6	9.3	115.5	124.8
1968 . . .	184.0	83.6	50.3	317.9	7.1	118.2	125.2
1969 . . .	205.5	86.1	(c)159.6	451.2	7.4	130.3	137.7
1970 . . .	261.1	93.3	61.0	415.4	7.2	117.0	124.2
				FEMALES			
1966 . . .	64.2	29.2	9.0	102.5	11.2	307.6	318.8
1967 . . .	64.0	28.7	10.4	103.1	11.3	332.6	344.0
1968 . . .	67.2	33.5	9.2	109.9	14.5	367.9	382.4
1969 . . .	78.0	37.3	(c)41.1	156.4	17.1	395.5	412.6
1970 . . .	115.3	36.6	7.3	159.2	13.7	416.8	430.5
				PERSONS			
1966 . . .	238.8	111.3	41.3	391.5	19.3	416.6	435.9
1967 . . .	241.5	110.3	38.0	389.7	20.7	448.1	468.8
1968 . . .	251.2	117.1	59.5	427.8	21.6	486.1	507.6
1969 . . .	283.5	123.4	(c)200.7	607.6	24.5	525.7	550.2
1970 . . .	376.5	129.9	68.2	574.6	20.9	533.8	554.8

(a) Civilians 15 years of age and over. For definitions *see* page 694. (b) *See* note (b) to previous table. (c) Affected by industrial disputes.

UNEMPLOYED PERSONS(*a*): AUSTRALIA

	Age (years)				*Duration of unemployment*(*b*)				*Looking for—*		
	15–19		*20 and over*								
May—	*Number unemployed* ('000)	*Per cent of labour force*	*Number unemployed* ('000)	*Per cent of labour force*	*Under 2 weeks* ('000)	*2 and under 4 weeks* ('000)	*4 and under 13 weeks* ('000)	*13 weeks and over* ('000)	*Full-time work*(*c*) ('000)	*Part-time work*(*d*) ('000)	*Total*
					MALES						
1966 .	8.2	2.3	24.7	0.8	9.0	8.4	9.3	6.1	30.3	*	32.9
1967 .	11.1	3.2	28.9	0.9	10.8	11.1	9.6	8.6	37.2	*	40.0
1968 .	10.5	3.2	27.2	0.9	7.1	12.5	11.9	6.2	35.7	*	37.7
1969 .	7.7	2.3	27.7	0.9	6.9	10.4	11.1	7.0	33.4	*	35.4
1970 .	8.2	2.4	25.7	0.8	8.6	13.6	8.3	*	31.5	*	33.9
					FEMALES						
1966 .	12.5	3.8	20.1	1.8	7.0	6.2	9.0	10.4	23.9	8.7	32.5
1967 .	14.5	4.4	24.2	2.1	8.1	10.2	9.0	11.5	30.2	8.6	38.8
1968 .	13.3	4.2	27.6	2.2	9.3	9.5	13.2	8.9	29.5	11.4	40.9
1969 .	12.0	3.8	27.7	2.1	10.6	11.0	10.3	7.8	27.8	11.8	39.7
1970 .	11.4	3.6	26.3	1.9	10.2	9.0	13.3	5.2	23.9	13.8	37.7
					PERSONS						
1966 .	20.7	3.0	44.7	1.1	16.0	14.6	18.3	16.5	54.2	11.2	65.4
1967 .	25.6	3.8	53.1	1.2	18.9	21.2	18.6	20.1	67.3	11.4	78.8
1968 .	23.8	3.7	54.8	1.2	16.4	22.0	25.0	15.1	65.1	13.4	78.5
1969 .	19.7	3.0	55.4	1.2	17.5	21.4	21.4	14.8	61.2	13.8	75.1
1970 .	19.5	3.0	52.0	1.1	18.8	22.6	21.6	8.6	55.3	16.2	71.5

* Estimates less than 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

(*a*) Civilians 15 years of age and over. For definitions *see* page 694. (*b*) Period from the time the person began looking for work, or was laid off, to the end of survey week. (*c*) Includes persons laid off from full-time jobs. (*d*) Includes persons laid off from part-time jobs.

EMPLOYED WAGE AND SALARY EARNERS

Estimates of wage and salary earners in civilian employment that were published in previous issues of the Year Book were based on data derived from the population censuses of June 1954 and June 1961. Estimates in this issue are based on data derived from the 1966 census. Because of the adoption of a new definition of the labour force in the 1966 census these estimates are not comparable with those for periods prior to June 1966.

Detailed industry figures for each State and Australia, on the new basis, and a revised government employment series, were published in a mimeographed bulletin *Employed Wage and Salary Earners, June* 1966 *to June* 1969. This bulletin contained estimates for each month of the period covered. Estimates for subsequent months have been published in *Employment and Unemployment*.

Particulars of the questions asked in the 1966 census in order to determine each person's labour force status are given on pages 691–2. Provided he had not been temporarily laid off by his employer without pay for the whole of the week prior to the census, a person who answered 'yes' to either of the first two of those questions was classified as employed.

The data needed to derive the estimates for periods subsequent to the benchmark date (June 1966) are obtained from three main sources, namely, (*a*) current pay-roll tax returns; (*b*) current returns from government bodies; and (*c*) some other current returns of employment (e.g. for hospitals); the balance, i.e. unrecorded private employment, is estimated. At June 1966, recorded employment obtained from the foregoing sources accounted for about 85 per cent of the total number of employees in the industries covered, as determined by the census.

The figures in this section, except those in the table on page 701, relate only to civilian wage and salary earners, not the total labour force. They therefore exclude employers, self-employed persons, unpaid helpers and defence forces. Also excluded, because of the inadequacy of current data, are employees in agriculture and in private domestic service, and some part-time employees.

The June 1966 figures were derived from particulars recorded for individuals on population census schedules, while the estimated monthly changes are derived mainly from reports supplied by employers, relating to enterprises or establishments. Because the two sources differ in some cases in the reporting of industry, the industry dissection of the census totals has been adjusted to conform as closely as possible to an establishment reporting basis. For this reason, and because crews of overseas ships were excluded from the benchmark figures, the estimates for June 1966 in this chapter differ from those published in the series of census bulletins (Nos. 1.6, 2.6, etc.) which show particulars of the occupational status and industry of the population in each State and Territory, and in other publications which contain population census results. The industry classification used throughout the series is that of the population census of June 1966.

Current data supplied by reporting enterprises or establishments generally refer to persons on the pay-roll for the last pay-period in each month. Persons who are on paid leave or who work during part of the pay-period and are unemployed or on strike during the rest of the period are generally counted as employed. Those not shown on employers' pay rolls because they are on leave without pay, on strike or stood down for the entire period are excluded.

Pay-roll tax returns are lodged at present by all employers paying more than $400 a week in wages (other than certain Commonwealth Government bodies, religious and benevolent institutions, public hospitals and other similar organisations specifically exempted under the *Pay-roll Tax Assessment Act* 1941–1969).

Particulars of employment obtained from other collections, such as the annual manufacturing census and censuses and sample surveys of retail establishments, are used to check and where desirable to revise estimates in relevant sections. Some figures are subject to further revision as the results of later censuses and surveys become available.

Although the series measure reasonably well the short-term trends in employment in the defined field, they may be less reliable for longer-term measurement. There are conceptual differences between benchmark and pay-roll data, and changes in such factors as labour turnover, multiple jobholding and part-time working all affect the trend over longer periods.

Total civilian employees and defence forces

WAGE AND SALARY EARNERS IN EMPLOYMENT, BY SEX: AUSTRALIA
JUNE 1966 TO JUNE 1970

EXCLUDING EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE

('000)

	June 1966	*June 1967*	*June 1968*	*June 1969*	*June 1970*
MALES					
Civilian employees—					
Private	1,865.4	1,891.9	1,945.1	2,014.9	2,085.7
Government(*a*)	746.8	758.7	780.2	790.0	803.7
Total	2,612.2	2,650.6	2,725.3	2,804.9	2,889.4
Defence forces(*b*)	64.2	74.8	78.1	80.8	81.5
Total	*2,676.4*	*2,725.4*	*2,803.4*	*2,885.7*	*2,970.9*
FEMALES					
Civilian employees—					
Private	975.0	1,023.3	1,064.6	1,110.7	1,176.4
Government(*a*)	216.3	228.4	239.9	256.1	275.0
Total	1,191.3	1,251.7	1,304.5	1,366.8	1,451.4
Defence forces(*b*)	2.5	2.5	2.7	2.7	2.7
Total	*1,193.8*	*1,254.2*	*1,307.2*	*1,369.5*	*1,454.1*
PERSONS					
Civilian employees—					
Private	2,840.3	2,915.3	3,009.8	3,125.6	3,262.1
Government(*a*)	963.2	987.0	1,020.0	1,046.1	1,078.7
Total	3,803.5	3,902.3	4,029.8	4,171.7	4,340.8
Defence forces(*b*)	66.6	77.3	80.8	83.5	84.2
Total	**3,870.1**	**3,979.6**	**4,110.6**	**4,255.2**	**4,425.0**

(*a*) Includes employees, within Australia, of government authorities (Commonwealth, State, local, and semi-government) on services such as railways, tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories and munitions establishments, departmental hospitals and institutions, migrant hostels, etc., as well as administrative employees. *See* pages 703–4. (*b*) Permanent defence forces in Australia and overseas. Includes national servicemen enlisted in the Regular Army Supplement.

Civilian employees

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT BY INDUSTRY GROUP AND SEX: AUSTRALIA, JUNE 1966 TO JUNE 1970

EXCLUDING DEFENCE FORCES AND EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE

('000)

Industry group	*June 1966*	*June 1967*	*June 1968*	*June 1969*	*June 1970*
		MALES			
Mining and quarrying	50.9	52.4	55.2	59.5	65.0
Manufacturing	950.3	961.6	980.1	1,002.5	1,021.1
Electricity, gas, water, and sanitary services	98.6	101.0	103.2	104.3	105.2
Building and construction	334.0	325.9	336.1	344.3	352.2
Transport and storage	203.2	203.7	208.2	211.9	218.2
Communication	80.4	83.6	86.3	87.7	90.4
Finance and property	98.8	102.6	106.5	112.5	118.6
Retail trade	192.6	196.1	200.2	204.0	209.9
Wholesale and other commerce	192.6	194.8	197.9	203.4	208.0
Public authority activities (n.e.i.)	110.6	116.3	121.4	126.8	132.1
Health, hospitals, etc.	38.6	39.9	41.4	43.0	44.9
Education	79.7	82.8	88.2	92.8	97.3
Amusement, hotels, cafes, personal service, etc.	84.2	89.8	95.0	101.7	108.4
Other(*a*)	97.8	100.1	105.6	110.6	118.1
Total	*2,612.2*	*2,650.6*	*2,725.3*	*2,804.9*	*2,889.4*
		FEMALES			
Mining and quarrying	2.2	2.6	2.8	3.3	4.2
Manufacturing	312.8	321.5	329.9	342.1	355.9
Electricity, gas, water, and sanitary services	7.2	7.2	7.5	7.9	8.2
Building and construction	11.9	12.1	13.4	14.6	16.0
Transport and storage	22.5	23.2	24.0	25.2	27.1
Communication	23.4	24.6	24.9	25.4	26.5
Finance and property	71.5	75.2	78.6	83.1	90.2
Retail trade	195.9	208.6	214.5	219.7	229.0
Wholesale and other commerce	72.7	73.7	76.6	79.8	83.9
Public authority activities (n.e.i.)	46.5	49.9	52.0	55.4	60.2
Health, hospitals, etc.	142.3	149.1	156.7	165.6	176.8
Education	105.1	111.4	119.9	128.7	137.4
Amusement, hotels, cafes, personal service, etc.	114.7	125.8	133.7	140.3	153.1
Other(*a*)	62.5	66.9	70.0	75.9	83.0
Total	*1,191.3*	*1,251.7*	*1,304.5*	*1,366.8*	*1,451.4*
		PERSONS			
Mining and quarrying	53.2	54.9	58.0	62.8	69.2
Manufacturing	1,263.1	1,283.1	1,310.0	1,344.6	1,377.0
Electricity, gas, water, and sanitary services	105.8	108.2	110.7	112.1	113.4
Building and construction	345.9	338.0	349.5	358.9	368.2
Transport and storage	225.7	226.8	232.2	237.1	245.3
Communication	103.8	108.1	111.2	113.0	117.0
Finance and property	170.3	177.7	185.1	195.6	208.8
Retail trade	388.5	404.6	414.7	423.7	438.8
Wholesale and other commerce	265.2	268.6	274.6	283.2	291.9
Public authority activities (n.e.i.)	157.2	166.2	173.4	182.1	192.3
Health, hospitals, etc.	180.9	189.0	198.1	208.6	221.6
Education	184.7	194.2	208.1	221.5	234.7
Amusement, hotels, cafes, personal service, etc.	198.9	215.7	228.6	241.9	261.5
Other(*a*)	160.3	167.0	175.6	186.5	201.0
Total	**3,803.5**	**3,902.3**	**4,029.8**	**4,171.7**	**4,340.8**

(*a*) Comprises forestry, fishing and trapping; law, order and public safety; religion and social welfare; and other community and business services.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY SEX STATES AND TERRITORIES, JUNE 1966 TO JUNE 1970

EXCLUDING DEFENCE FORCES AND EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE

('000)

June—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.(a)*	*Aust.*
				MALES					
1966	989.5	735.7	342.2	242.8	181.0	81.6	12.8	26.6	2,612.2
1967	1,002.7	747.7	345.1	245.7	184.2	83.2	13.8	28.0	2,650.6
1968	1,025.4	763.5	354.6	254.0	197.0	84.7	15.6	30.5	2,725.3
1969	1,052.2	782.2	366.6	261.6	206.4	86.5	17.2	32.2	2,804.9
1970	1,083.2	802.2	378.0	266.6	216.2	88.5	19.3	35.3	2,889.4
				FEMALES					
1966	456.1	361.2	139.8	106.1	76.3	33.8	4.9	13.2	1,191.3
1967	480.4	376.5	147.3	109.8	82.3	35.5	5.5	14.4	1,251.7
1968	497.2	388.2	154.0	116.2	89.3	37.1	6.4	16.1	1,304.5
1969	518.4	405.8	160.7	121.4	97.3	38.1	7.2	18.1	1,366.8
1970	549.1	425.7	171.3	129.9	107.5	39.3	8.1	20.6	1,451.4
				PERSONS					
1966	1,445.6	1,096.9	482.0	348.9	257.3	115.4	17.7	39.8	3,803.5
1967	1,483.1	1,124.2	492.4	355.5	266.5	118.7	19.3	42.4	3,902.3
1968	1,522.6	1,151.7	508.6	370.2	286.3	121.8	22.0	46.6	4,029.8
1969	1,570.6	1,188.0	527.3	383.0	303.7	124.6	24.4	50.3	4,171.7
1970	1,632.3	1,227.9	549.3	396.5	323.7	127.8	27.4	55.9	4,340.8

(*a*) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

Government employees

The numbers of civilian employees of Commonwealth, State and local government authorities in each State and Territory at June 1969 and 1970 are shown in the following tables. These include employees within Australia of government authorities on services such as railways, tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories and munitions establishments, departmental hospitals and institutions, migrant hostels, etc., as well as administrative employees.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES, BY SEX STATES AND TERRITORIES, JUNE 1969 AND JUNE 1970

('000)

	Commonwealth Government(a)			*State Government(a)*			*Local Government*			*Total(a)*		
State or Territory	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
						JUNE 1969						
New South Wales	79.8	26.1	105.8	160.0	60.4	220.3	43.6	5.6	49.1	283.3	92.0	375.3
Victoria	65.5	20.8	86.3	121.1	40.7	161.8	16.5	3.2	19.6	203.0	64.7	267.7
Queensland	24.1	7.4	31.5	70.5	21.0	91.5	18.2	1.6	19.8	112.8	30.0	142.8
South Australia	22.3	5.7	28.1	48.1	20.5	68.6	4.6	0.7	5.4	75.0	27.0	102.0
Western Australia	13.6	4.2	17.9	45.0	15.3	60.2	5.4	0.9	6.3	64.0	20.4	84.4
Tasmania	5.1	1.7	6.7	18.6	6.4	25.1	2.3	0.3	2.6	26.0	8.4	34.4
Northern Territory	6.3	2.5	8.8	..	..	..	0.1	..	0.1	6.4	2.5	8.9
Australian Capital Territory	19.6	11.0	30.6	..	..	..	..	..	..	19.6	11.0	30.6
Australia	**236.2**	**79.4**	**315.7**	**463.2**	**164.2**	**627.5**	**90.6**	**12.4**	**103.0**	**790.0**	**256.1**	**1,046.1**
						JUNE 1970						
New South Wales	81.9	27.5	109.4	161.3	64.7	226.1	44.0	5.7	49.8	287.3	98.0	385.2
Victoria	67.4	21.9	89.4	121.5	43.0	164.6	16.8	3.4	20.2	205.8	68.3	274.1
Queensland	24.9	8.0	32.9	71.2	22.2	93.3	18.3	1.6	19.9	114.4	31.7	146.1
South Australia	22.4	6.0	28.4	49.1	23.0	72.1	4.7	0.7	5.4	76.1	29.7	105.9
Western Australia	14.3	4.7	19.0	45.9	17.1	63.1	5.7	1.0	6.7	65.9	22.8	88.8
Tasmania	5.2	1.7	6.8	18.7	6.7	25.4	2.4	0.4	2.8	26.3	8.7	35.0
Northern Territory	6.6	2.9	9.5	..	..	..	0.1	..	0.1	6.7	2.9	9.6
Australian Capital Territory	21.2	12.8	34.0	..	..	..	..	..	..	21.2	12.8	34.0
Australia	**243.9**	**85.5**	**329.4**	**467.7**	**176.7**	**644.4**	**92.1**	**12.8**	**104.8**	**803.7**	**275.0**	**1,078.7**

(*a*) Includes semi-government authorities. *See* explanation above.

CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES, BY SEX: AUSTRALIA JUNE 1966 TO JUNE 1970

('000)

June—	*Commonwealth Government(a)*			*State Government(a)*			*Local Government*			*Total(a)*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
1966	214.2	67.3	281.5	443.6	138.5	582.2	89.0	10.5	99.5	746.8	216.3	963.2
1967	223.6	71.6	295.2	446.9	145.7	592.5	88.2	11.1	99.3	758.7	228.4	987.0
1968	230.7	74.7	305.4	457.5	153.4	610.9	92.1	11.7	103.8	780.2	239.9	1,020.0
1969	236.2	79.4	315.7	463.2	164.2	627.5	90.6	12.4	103.0	790.0	256.1	1,046.1
1970	243.9	85.5	329.4	467.7	176.7	644.4	92.1	12.8	104.8	803.7	275.0	1,078.7

(*a*) Includes semi-government authorities. *See* explanation on page 703.

COMMONWEALTH EMPLOYMENT SERVICE

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the *Re-establishment and Employment Act* 1945–1966 (sections 47 and 48). In brief, the main functions of the C.E.S. are to assist people seeking employment to obtain positions best suited to their training, experience, abilities, and qualifications; and to assist employers seeking labour to obtain employees best suited to their needs. The organisation and functions of the C.E.S. conform to the provisions of the Employment Service Convention, 1948, of the International Labour Organisation, which was ratified by Australia in December 1949. In addition, C.E.S. practices accord substantially with the provisions of the I.L.O. Employment Service Recommendation, 1948.

The C.E.S. functions on a decentralised basis within the Employment and Industrial Services Division of the Department of Labour and National Service. The Central Office is in Melbourne and there is a Regional Office in the capital city of each State. There are 157 District Employment Offices and Branch Offices in suburban and the larger provincial centres and 325 agents in the smaller country centres. The District Employment Offices and Branch Offices are distributed as follows: New South Wales, 54; Victoria, 38; Queensland, 26; South Australia, 15; Western Australia, 16; Tasmania, 5; Northern Territory, 2; Australian Capital Territory, 1.

Specialised facilities are provided for young people, persons with physical and mental handicaps, ex-members of the defence forces, national service dischargees, migrants, rural workers, and persons with professional and technical qualifications. The C.E.S. provides vocational guidance free of charge in all States and has a staff of qualified psychologists for this function. Guidance is available to any person, but is provided particularly for young people, ex-servicemen and the handicapped. In New South Wales the C.E.S. provides vocational guidance to adults, including ex-servicemen and the handicapped, while the State Department of Labour and Industry provides a vocational guidance service within the school system and for young persons leaving school.

All applicants for unemployment benefits under the *Social Services Act* 1947–1970 must register at a District Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them. The C.E.S. is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to Commonwealth migrant hostels. Assistance in obtaining employment is provided to other migrants as required. From the inception of the various free and assisted schemes, including the Displaced Persons Scheme, to the end of June 1970, about 272,000 British and European migrant workers had been placed in initial employment by the C.E.S. Since 1951 it has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance (now replaced by the U.N. Development Programme). The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health, and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out and detailed information is supplied to interested Commonwealth and State Government departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The Service completed its twenty-fourth year of operation in May 1970. During 1969 there were 1,072,399 applicants who registered for employment, of whom 822,967 were referred to employers and 474,601 placed in employment. New vacancies notified numbered 704,146.

Persons registered for employment

The following table shows the number of persons who claimed, when registering for employment with the Commonwealth Employment Service, that they were not employed and who were recorded as unplaced. The figures include those persons who were referred to employers and those who may have obtained employment without notifying the C.E.S. They include persons in receipt of unemployment benefit (*see* the chapter Welfare Services).

PERSONS REGISTERED FOR EMPLOYMENT WITH COMMONWEALTH EMPLOYMENT SERVICE: STATES, JUNE 1966 TO JUNE 1970

(*Source:* Department of Labour and National Service)

June(a)	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.(c)*	*W.A.*	*Tas.*	*Aust.*
1966	22,837	14,026	9,735	7,357	3,370	1,695	59,020
1967	24,957	16,152	13,025	8,484	3,757	2,116	68,491
1968	20,808	19,595	10,252	8,359	4,151	2,088	65,253
1969	18,277	13,254	10,908	6,300	4,007	2,120	54,866
1970	16,527	13,008	8,585	6,360	5,147	1,888	51,515

(*a*) Generally at Friday nearest end of month. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

Job vacancies

The following table shows the number of vacancies registered with the Commonwealth Employment Service. The figures refer to vacancies which employers claimed were available immediately or would be available by the end of the following calendar month.

VACANCIES REGISTERED WITH COMMONWEALTH EMPLOYMENT SERVICE STATES, JUNE 1966 TO JUNE 1970

(*Source:* Department of Labour and National Service)

June(a)	*N.S.W.(b)*	*Vic.*	*Qld*	*S.A.(c)*	*W.A.*	*Tas.*	*Aust.*
1966	10,734	13,751	3,239	1,507	2,965	825	33,021
1967	10,384	11,459	2,345	1,342	2,411	1,394	29,335
1968	11,416	9,411	2,605	1,591	2,630	1,069	28,722
1969	14,053	11,777	2,057	2,561	3,786	762	34,996
1970	17,674	12,326	3,240	2,495	3,206	924	39,865

(*a*) Generally at Friday nearest end of month. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

SURVEY OF CHILD CARE

In May 1969 a survey, based on the quarterly population survey sample (a one per cent sample of households), was conducted throughout Australia in order to obtain, for persons who were in the labour force and who also had the responsibility for the care of children under twelve years of age, information about the arrangements they made to have their children cared for while they themselves were at work (including arrangements for after-school and school holiday care). In addition, information was sought as to the numbers of persons who would have entered the labour force had suitable child care facilities been available. The inquiry was directed mainly to working mothers, but males with the sole responsibility for children were also included.

For the survey of child care, questions were asked of all females in the population survey aged less than sixty years and all widowed, divorced and permanently separated males in the population survey aged less than sixty years, with the following exceptions: persons attending school, university, etc. full-time, persons permanently unable to work, and inmates of institutions such as hospitals, sanatoria and gaols, for whom, for the purposes of the survey, the institution was regarded as their dwelling.

The *labour force* comprises all persons who, during the survey week, were employed or unemployed, according to the definitions customarily used in the population survey. *Employed* persons are those who, during the survey week, did any work for pay, profit, etc. in a job or business, or on a farm, worked fifteen hours or more without pay in a family business (or farm), or had a job, business or farm from which they were temporarily absent. *Unemployed* persons are those who during the survey week did not have a job or business and were actively looking for work or were laid off from their jobs without pay for the whole week. For more detailed definitions *see* page 694.

For the purposes of the survey, a *child care centre* was defined as a registered or unregistered establishment, other than a private dwelling, where care was provided for five or more children below compulsory school age. Some other common names given to these centres are 'child minding centre', 'creche', 'cot room' and 'nursery school'. Centres such as pre-schools and kindergartens which are educational institutions were also included in this category. A *home care centre* was defined as one operated on a commercial basis in a private dwelling, in which the proprietor generally lived.

The *person responsible* for the care of a child under twelve years of age was defined as the person who, being a member of the household to which the child belonged, ranked highest in the following list:

(*a*) Child's mother, step-mother, foster mother, female guardian.
(*b*) Child's father, step-father, foster father, male guardian.
(*c*) Any other person considered by the respondent as being responsible for the child.

The standard errors given in Table A on page 695 also apply to the Survey of Child Care. In general, comments on the reliability of estimates on pages 695–6 are also applicable to this survey.

For further details reference should be made to the mimeographed bulletin *Child Care, May* 1969 (Reference No. 17.2).

ALL PERSONS(*a*) RESPONSIBLE FOR CHILDREN UNDER 12 YEARS OF AGE BY NUMBER AND AGE OF CHILDREN, AUSTRALIA, MAY 1969

('000)

Number of children aged 6–11	*Persons with children under 6*				*Persons with no children under 6 but with children aged 6–11*	*Total persons with children under 12*
	One child under 6	*Two children under 6*	*Three or more children under 6*	*Total*		
One	138.0	60.0	15.5	213.5	276.8	490.3
Two	95.6	34.0	8.6	138.2	164.1	302.3
Three or more	36.2	16.2	6.3	58.7	55.0	113.7
One or more children aged 6–11	269.8	110.2	30.3	410.4	496.0	906.3
No children aged 6–11	272.4	190.8	47.5	510.6	..	510.6
Total	**542.2**	**301.0**	77.9	**921.0**	496.0	(*b*)**1,417.0**

(*a*) Females, and widowed, divorced and permanently separated males, aged 15 to 59 years. For definition of 'person responsible' *see* above. (*b*) Comprises 11,100 males and 1,405,900 females.

PERSONS(*a*) RESPONSIBLE FOR CHILDREN UNDER 12 YEARS OF AGE, BY EMPLOYMENT STATUS AND NUMBER OF CHILDREN, AUSTRALIA, MAY 1969

('000)

Number of children under 12	*In the labour force*			*Not in the labour force*	*Total*
	Employed	*Unemployed*	*Total*		
One	189.0	5.4	194.4	354.8	549.2
Two	134.6	7.2	141.8	351.0	492.9
Three	54.1	*	57.5	185.6	243.1
Four or more	19.5	*	20.2	111.6	131.8
Total	**397.3**	**16.7**	**413.9**	**1,003.0**	**1,417.0**

* Estimates less than 4,000 are not published because they would be subject to sampling variablity too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

(*a*) Females, and widowed, divorced and permanently separated males, aged 15 to 59 years.

PERSONS(*a*) IN THE LABOUR FORCE AND RESPONSIBLE FOR CHILDREN UNDER 12 YEARS OF AGE, BY NUMBER AND AGE OF CHILDREN, AUSTRALIA, MAY 1969

('000)

	Persons with children under 6					
Number of children aged 6–11	*One child under 6*	*Two children under 6*	*Three or more children under 6*	*Total*	*Persons with no children under 6 but with children aged 6–11*	*Total persons with children under 12*
One	39.1	8.9	*	49.9	117.8	167.7
Two	25.4	5.6	*	30.2	69.6	99.8
Three or more	8.0		*	10.2	21.1	31.3
One or more children aged 6–11	72.5	14.5	*	90.3	208.5	298.8
No children aged 6–11	76.6	33.1	5.5	115.1	..	115.1
Total	**149.1**	**47.6**	**8.8**	**205.5**	**208.5**	**(*b*)413.9**

* Less than 4,000. *See* footnote* to previous table.

(*a*) Females, and widowed, divorced and permanently separated males, aged 15 to 59 years. (*b*) Comprises 10,600 males and 403,300 females.

PERSONS(*a*) IN THE LABOUR FORCE AND RESPONSIBLE FOR SCHOOL CHILDREN AGED 4–11 YEARS, BY CHILD CARE ARRANGEMENTS AFTER SCHOOL AND DURING SCHOOL HOLIDAYS, AUSTRALIA, MAY 1969(*b*)

Type of after-school arrangement	*Number ('000)*	*Type of holiday arrangement*	*Number ('000)*
Person responsible worked during school hours or at night	96.4	Person responsible stopped work, took leave	57.1
Child's father at home	26.7	Person responsible worked at night	15.4
With other relatives(*c*), at home	44.3	With relatives(*c*), at home	72.7
With relatives or friends, not at child's home	41.3	With relatives or friends, not at child's home	70.5
Other arrangements	10.2	Other arrangements	15.2
No arrangements	44.6	No arrangements	32.6
Total	**263.5**	**Total**	**263.5**

(*a*) Females, and widowed, divorced and permanently separated males, aged 15 to 59 years. Excludes 43,100 persons working at home. (*b*) A person looking for work was classified according to the arrangement intended to be made when a job was obtained. (*c*) Includes older brothers and sisters of the children.

CHILDREN UNDER 6 YEARS OF AGE WHO WERE THE RESPONSIBILITY OF PERSONS(*a*) IN THE LABOUR FORCE, BY TYPE OF CARE ARRANGEMENT(*b*), STATES, MAY 1969

('000)

Type of care arrangement(b)	*N.S.W.*	*Vic.*	*Other States and Territories*	*Total*
Nursery, creche, care centre, home care centre, etc.(*c*)	7.5	7.5	5.7	20.8
Child at school	10.2	8.5	9.2	27.9
At home, with relatives(*d*)	22.2	22.6	26.3	71.1
At home, not with relatives	5.3	*	4.5	13.2
With relatives, not at child's home	10.0	8.3	10.5	28.8
With others, not at child's home	14.1	11.9	10.1	36.1
Person responsible worked at home(*e*)	24.3	12.9	26.0	63.2
Other arrangements	*	*	6.0	10.6
Total	**96.2**	**77.2**	**98.3**	**271.7**

* Less than 4,000. *See* footnote* to second table on page 706.

(*a*) Females, and widowed, divorced and permanently separated males. aged 15 to 59 years. (*b*) A person looking for work was classified according to the arrangement intended to be made when a job was obtained. (*c*) *See* definitions, page 706. (*d*) Includes older brothers and sisters of the children. (*e*) Includes working in a shop or other business on the same premises.

FEMALES(*a*) NOT IN THE LABOUR FORCE WHO WOULD HAVE WORKED IF SUITABLE CHILD CARE ARRANGEMENTS HAD BEEN AVAILABLE, BY NUMBER AND AGE OF CHILDREN, STATES, MAY 1969

('000)

Age and number of children	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.(b)*
Under 3 years—							
One child . . .	23.7	10.6	8.3	5.2	4.4	*	54.4
Total . . .	*28.4*	*12.7*	*9.8*	*5.5*	*5.1*	*	*64.3*
3–5 years—							
One child . . .	21.2	8.8	6.4	4.3	4.0	*	46.7
Total . . .	*25.8*	*11.3*	*8.5*	*4.8*	*4.7*	*	*58.4*
Under 6 years(*c*)—							
One child . . .	19.9	9.6	6.3	4.7	4.6	*	46.4
Two or more children .	20.2	8.8	7.2	*	*	*	45.1
Total . . .	*40.1*	*18.4*	*13.4*	*7.7*	*7.5*	*	*91.5*
6 years and over . .	5.9	*	*	*	*	*	11.3
Total . . .	**46.0**	**20.8**	**14.8**	**8.6**	**7.9**	*	**102.8**

* Less than 4,000. *See* footnote* to second table on page 706.
(*a*) Aged 15 to 59 years. (*b*) Includes the Northern Territory and the Australian Capital Territory. (*c*) Includes females with children aged under 3 years and 3 to 5 years.

FEMALES(*a*) NOT IN THE LABOUR FORCE WHO WOULD HAVE WORKED IF SUITABLE CHILD CARE ARRANGEMENTS HAD BEEN AVAILABLE, BY NUMBER AND AGE OF CHILDREN FOR WHOM RESPONSIBLE AND TYPE OF ARRANGEMENT REQUIRED AUSTRALIA, MAY 1969

('000)

	Type of child care arrangement required		
Age and number of children	*Care centre after-school centre, etc.(b)*	*Other*	*Total*
Under 3 years—			
One child	37.2	17.2	54.4
Two or more children . . .	5.2	4.8	10.0
Total	*42.3*	*22.0*	*64.3*
3–5 years—			
One child	32.2	14.5	46.7
Two or more children . . .	8.5	*	11.7
Total	*40.8*	*17.6*	*58.4*
Under 6 years(*c*)—			
One child	33.7	12.7	46.4
Two children	24.6	12.4	37.0
Three or more children . .	4.7	*	8.1
Total	*63.0*	*28.5*	*91.5*
6 years and over	7.9	*	11.3
Total	**70.9**	**31.9**	**102.8**

* Less than 4,000. *See* footnote* to second table on page 706.
(*a*) Aged 15 to 59 years. (*b*) For definition *see* page 706. (*c*) Includes females with children aged under 3 years and 3 to 5 years.

CHAPTER 22

MANUFACTURING INDUSTRY

Further detail on the subjects dealt with in this chapter is contained in the annual printed bulletins *Manufacturing Industry* and *Manufacturing Commodities*. Information is also published, as soon as the data can be prepared, in a series of thirty-five annual mimeographed bulletins, *Manufacturing Industries*, each relating to a particular industry or group of industries. Details of the industries covered are contained in the list of Statistical and other official publications of Australia in the Miscellaneous chapter. Advance annual information is published in mimeographed form in *A Summary of Principal Statistics of Factories* and in *Principal Factory Products*. Current information on factory products is available in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*. A preliminary annual statement (*Factory Statistics*) and a monthly statement (*Production Statistics*) are also issued.

In addition to the above-mentioned publications, there is also a series of fifty-two *Monthly Production Summaries*, each relating to the production of a particular commodity or group of commodities (*see* reference above to Statistical publications).

The annual mimeographed bulletin *Indexes of Factory Production* deals comprehensively with this subject, which is treated only in summarised fashion on pages 729–30.

Economic censuses, 1968-69

In respect of the year 1968–69, the Commonwealth Bureau of Census and Statistics has conducted the annual census of manufacturing industry as part of a programme of fully integrated economic censuses covering manufacturing and mining industries, and retail and wholesale trade. For a detailed description of the purposes served by this project, and of the new concepts and methods adopted, the reader is referred to the special article on the censuses, which appears as Chapter 31 of this Year Book.

The integrated economic censuses have been a major undertaking involving the development of new concepts, definitions and procedures. Inevitably there has been a considerable delay in finalising the results of the censuses and, for this chapter on manufacturing industry, it has not been possible to provide more up to date statistics than those for 1967–68 which were included in the previous issue. In view of this, the detailed tables showing statistics for individual industries, included in the previous issue, on pages 1075–95, have not been repeated. Results of the 1968–69 censuses will be available in a set of special bulletins.

Introduction

A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906, and figures on this basis were prepared for 1907 and subsequent years.

An historical summary of the development of the manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book (*see* No. 51, pages 143–4).

Decentralisation of manufacturing industries

The decentralisation of secondary industries, and the steps taken by Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book (*see* No. 51, page 144).

Bounties on manufacture

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable, and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (*See* Chapter 18, Public Finance for products on which bounties are paid.)

Standardisation

The Commonwealth Scientific and Industrial Research Organization has functions concerned with the improvement of efficiency in industrial operations. For further particulars *see* the chapter Education, Cultural Activities, and Research of this Year Book.

The Standards Association of Australia is the organisation responsible for industrial standardisation on a national basis. It issues Australian standards for materials and products and standard codes of practice.

Formed as the Australian Commonwealth Engineering Standards Association in 1922, it was reconstituted as the Standards Association of Australia in 1929, and was incorporated by Royal Charter in 1950. It is an independent body having the full recognition and support of the Commonwealth and State Governments and of industry. Approximately half its funds are provided by Commonwealth Government grant, the remainder coming primarily from membership subscriptions and from sale of publications. Organisations, companies, and individuals are eligible for subscribing membership.

The Association is controlled by a Council comprising representatives from Commonwealth and State Governments and their departments, from associations of manufacturing and commercial interests, and from professional institutions. Standards are prepared by committees composed of expert representatives from the interests associated with the subjects under consideration. This assistance is on a voluntary basis.

Preparation of standards is undertaken in response to requests from industrial associations or firms or from government departments. Standards may relate to one or more of several aspects of industrial practice such as terminology, test methods, dimensions, specifications of performance and quality of products, and safety or design codes. In general, standards derive authority from voluntary adoption based on their intrinsic merit, but in special cases where safety of life or property is involved, they may have compulsory application through statutory reference.

The Association is the owner of a registered certification trade mark covering conformity of products to standards. Manufacturers of products covered by Australian standards may obtain a licence to use the Australian Standard Mark, under conditions established by the Association.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electrotechnical Commission (IEC). Close links are maintained with overseas standards organisations, and the Association acts as Australian agent for the procurement of ISO and IEC publications and the standards of other countries.

The Association has two specialised libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organisations. These libraries provide necessary material for committee work and a free information service to those concerned with standards.

The headquarters office of the Association is in Sydney, and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

The National Association of Testing Authorities organises testing facilities throughout Australia to serve private and governmental needs.

Membership is open to authorities whose testing laboratories conform to the standards of staffing and operation defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of metrology, mechanical testing, electrical testing, optics and photometry, non-destructive testing, heat and temperature measurement, chemical testing, biological testing, and acoustic and vibration measurement. In June 1970 766 laboratories held NATA registration. A further 52 laboratories had been nominated for registration.

The Industrial Design Council of Australia was established in June 1958 for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. The Council is fully representative of industry, commerce and government, together with designers and educationists. Its activities are financed by donations from industry and commerce, and by Commonwealth and State grants. IDCA has established Australian design centres in Adelaide, Melbourne and Sydney. These centres display Australian products of approved design and present changing exhibitions relating to design in manufactured articles. IDCA is also responsible for the Australian Design Index which provides a detailed, illustrated record of well-designed Australian products.

The Design Delegate scheme enables regular contact to be maintained with senior executives of manufacturing companies, departmental officers and designers wishing to participate actively in IDCA's programme of lectures, information, and guidance on all aspects of industrial design. Services to design delegates are administered by IDCA through its design centres.

A Record of Designers has been set up to register information about industrial designers and their work. The Council, which has its headquarters in Melbourne, is also concerned with raising the standard of training in industrial design in co-operation with education authorities. For further particulars *see* Year Book No. 51, page 145.

Definitions in factory statistics

For the purposes of this Chapter, statistical definitions refer to the basis on which the statistics were compiled up to and including 1967–68. Important changes were introduced in the 1968–69 census (*see* page 709). The reader should refer to Chapter 31 for a detailed discussion of these new definitions and procedures, which will apply to 1968–69 statistics.

The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States from returns supplied to them annually by manufacturers in accordance with the statistical Acts of the States and the Commonwealth. A return must be supplied in respect of every *factory*, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries), but does not cover smallgoods makers, laundries, photography studios, florists and seedsmen, or most abattoirs.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry wherever practicable.

Manufacturers are requested to state in their returns particulars of the number, age, etc., of their employees, salaries and wages paid, the value of premises and equipment, the horse-power of machinery, the value of raw materials (including containers), tools replaced, etc., the values and in most cases the quantities of fuel used, and quantities and values of principal materials used and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

Persons employed in the manufacturing activities of the factory only are counted as factory employees. The figures relating to employment therefore include working proprietors as well as out-workers, but *exclude* all those engaged in selling and distribution such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen.

The *average number of persons* employed is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

Value of materials used includes also the value of stores used, containers, tools replaced, and materials used in repairs to plant.

Value of fuel, etc., used includes also the cost of power and light used, lubricants and water.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture concerned, and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the finished articles at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer. In the special case of government factories and workshops the value of output is, in most cases, estimated by adding ten per cent to the value of materials and fuel used and other factory costs, including salaries and wages paid.

The *value of production* is the value added to materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges). In the process of manufacture many goods are treated in several industries, the output from one becoming the material for another, so that such commodities are counted more than once in the aggregate value of output and of materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become materials in establishments concerned in the production of metal goods, timber from the sawmills used in furniture factories and in joinery, and synthetic resins from chemical works used to make plastic products. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of output, is used as a measure of activity in the manufacturing industries as a whole.

Statistics relating to factory activity in the Australian Capital Territory and Northern Territory are included in the figures contained in this chapter as from 1 July 1964, unless otherwise indicated.

A standard classification of manufacturing industries is used in compiling statistical data relating to factories in Australia. It is designed in accordance with decisions of the 1945 Conference of Statisticians, and represents a revision and extension of a classification which was introduced in 1930–31, replacing the revised versions of the original classification formulated in 1902.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Some particulars of certain of the sub-classes shown below were published in the latter portion of Chapter 26 of Year Book No. 55, and full details for all sub-classes may be found in the bulletin *Manufacturing Industry* (previously entitled *Secondary Industries*, Part I—*Factory and Building Operations*).

The classes and sub-classes in the current classification of factories are as follows.

CLASSIFICATION OF FACTORIES

CLASS 1. TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS

1. Coke works
2. Briquetting and pulverised coal
3. Carbide
4. Lime, plaster of paris, asphalt
5. Fibrous plaster and products
6. Marble, slate, etc.
7. Cement, portland
8. Asbestos cement sheets and mouldings
9. Other cement goods
10. Other

CLASS 2. BRICKS, POTTERY, GLASS, ETC.

1. Bricks and tiles
2. Earthenware, china, porcelain, and terracotta
3. Glass (other than bottles)
4. Glass bottles
5. Other

CLASS 3. CHEMICALS, DYES, EXPLOSIVES, PAINTS, OILS, GREASE

1. Industrial and heavy chemicals and acids
2. Pharmaceutical and toilet preparations
3. Explosives (including fireworks)
4. White lead, paints and varnish
5. Oils, vegetable
6. Oils, mineral
7. Oils, animal
8. Boiling-down, tallow refining
9. Soap and candles
10. Chemical fertilisers
11. Inks, polishes, etc.
12. Matches
13. Other

CLASS 4. INDUSTRIAL METALS, MACHINES, CONVEYANCES

1. Smelting, converting, refining, rolling of iron and steel
2. Foundries (ferrous)
3. Plant, equipment and machinery, including machine tools
4. Other engineering
5. Extracting and refining of other metals; alloys
6. Electrical machinery, cables and apparatus

7–16. Construction and repair of vehicles (10 groups)

17, 18. Ship and boat building and repairing, marine engineering (government and other)

19. Cutlery and small hand tools
20. Agricultural machines and implements

Non-ferrous metals—

21. Rolling and extrusion
22. Founding, casting, etc.
24. Sheet metal working, pressing and stamping
25. Pipes, tubes and fittings—Ferrous
26. Wire and wire working (including nails)
27. Stoves, ovens and ranges
28. Gas fittings and meters
29. Lead mills
30. Sewing machines
31. Arms, ammunition (excluding explosives)
32. Wireless and amplifying apparatus
33. Other metal works

CLASS 5. PRECIOUS METALS, JEWELLERY, PLATE

1. Jewellery
2. Watches and clocks (including repairs)
3. Electroplating (gold, silver, chromium, etc.)

Class 6. Textiles and Textile Goods (not Dress)

1. Cotton ginning
2. Cotton spinning and weaving
3. Wool—Carding, spinning, weaving
4. Hosiery and other knitted goods
5. Silk, natural
6. Rayon, acrylics and other synthetic fibres
7. Flax mills
8. Rope and cordage
9. Canvas goods, tents, tarpaulins, etc.
10. Bags and sacks
11. Textile dyeing, printing and finishing
12. Other

Class 7. Skins and Leather (not Clothing or Footwear)

1. Furriers and fur-dressing
2. Woolscouring and fellmongery
3. Tanning, currying and leather-dressing
4. Saddlery, harness and whips
5. Machine belting (leather or other)
6. Bags, trunks and other goods of leather and leather substitutes

Class 8. Clothing (except Knitted)

1. Tailoring and ready-made clothing
2. Waterproof and oilskin clothing
3. Dressmaking, hemstitching
4. Millinery
5. Shirts, collars, underclothing
6. Foundation garments
7. Handkerchiefs, ties and scarves
8. Hats and caps
9. Gloves
10. Boots and shoes (not rubber)
11. Boot and shoe repairing
12. Boot and shoe accessories
13. Umbrellas and walking sticks
14. Dyeworks and cleaning (including renovating and repairing)
15. Other

Class 9. Food, Drink and Tobacco

1. Flour-milling
2. Cereal foods and starch
3. Animal and bird foods
4. Chaffcutting and corncrushing
5. Bakeries (including cakes and pastry)
6. Biscuits
7. Sugar mills
8. Sugar refining
9. Confectionery (including chocolate and icing sugar)
10. Jam, fruit and vegetable canning
11. Pickles, sauces, vinegar
12. Bacon curing
13. Butter factories
14. Cheese factories
15. Condensed and dried milk factories
16. Margarine
17. Meat and fish preserving
18. Condiments, coffee, spices
19. Ice and refrigerating
20. Salt
21. Aerated waters, cordials, etc.
22. Breweries
23. Distilleries
24. Winemaking
25. Cider and perry
26. Malting
27. Bottling
28. Tobacco, cigars, cigarettes, snuff
29. Dehydrated fruit and vegetables
30. Ice cream
31. Sausage casings
32. Arrowroot
33. Other

Class 10. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving

1. Sawmills
2. Plywood mills (including veneers)
3. Bark mills
4. Joinery
5. Cooperage
6. Boxes and cases
7. Woodturning, woodcarving, etc.
8. Basketware and wickerware (including seagrass and bamboo furniture)
9. Perambulators (including pushers and strollers)
10. Wall and ceiling boards (not plaster or cement)
11. Other

Class 11. Furniture of Wood, Bedding, etc.

1. Cabinet and furniture making (including billiard tables and upholstery)
2. Bedding and mattresses (not wire)
3. Furnishing drapery
4. Picture frames
5. Blinds

Class 12. Paper, Stationery, Printing, Bookbinding, etc.

1. Newspapers and periodicals

Printing—

2. Government
3. General, including bookbinding
4. Manufactured stationery
5. Stereotyping, electrotyping
6. Process and photo engraving
7. Cardboard boxes, cartons and containers
8. Paper bags
9. Paper making
10. Pencils, penholder, chalks, crayons
11. Other

Class 13. Rubber

1. Rubber goods (including tyres made)
2. Tyre retreading and repairing

Class 14. Musical Instruments

1. Gramophones and gramophone records
2. Pianos, piano-players, organs
3. Other

Class 15. Miscellaneous Products

1. Linoleum, leather-cloth, oil-cloth, etc.
2. Bone, horn, ivory, and shell
3. Plastic moulding and products
4. Brooms and brushes
5. Optical instruments and appliances
6. Surgical and other scientific instruments and appliances
7. Photographic material (including developing and printing)
8. Toys, games and sports requisites
9. Artificial flowers
10. Other

Class 16. Heat, Light, and Power

1–3. Electric light and power

4–6. Gas works

Factory development since 1901, Australia

FACTORIES: AUSTRALIA(*a*), 1901 TO 1967-68

Year	Factories	Employment(*b*)	Salaries and wages paid(*c*)	Value of— Materials and fuel used	Output	Production (*d*)	Land and buildings (*e*)	Plant and machinery (*e*)
	No.	'000	$'000	$'000	$'000	$'000	$'000	$'000
1901	11,143	198	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1911	14,455	312	55,056	163,526	266,044	102,518	65,402	63,032
1920–21	17,113	367	125,864	427,118	647,986	220,868	121,662	137,310
1930–31	21,751	339	124,910	344,978	581,598	236,620	224,422	248,996
1940–41	27,300	650	275,838	773,762	1,289,590	515,828	288,188	322,712
1950–51	43,147	969	983,436	2,613,926	4,301,670	1,687,744	605,570	673,230
1960–61	57,782	1,145	2,289,230	6,115,930	10,465,765	4,349,835	2,389,140	2,785,565
1963–64	59,375	1,210	2,651,620	7,372,682	12,642,686	5,270,003	3,204,685	3,480,673
1964–65	61,042	1,269	2,993,709	8,140,600	14,037,355	5,896,754	3,505,859	3,766,253
1965–66	61,686	1,294	3,162,769	8,437,958	14,689,819	6,251,861	3,776,590	4,154,652
1966–67	62,500	1,309	3,407,683	9,015,844	15,892,845	6,877,001	4,061,193	4,706,843
1967–68	62,954	1,331	3,665,902	9,663,217	17,094,070	7,430,853	4,303,156	4,962,203

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory. (*b*) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (*c*) Excludes amounts drawn by working proprietors. (*d*) Value added in process of manufacture (i.e. value of output less value of materials and fuel, etc. used). (*e*) Depreciated or book values at 30 June. Includes estimated values of rented premises and machinery.

Number of factories

Number in each State and Territory

FACTORIES: NUMBER, STATES AND TERRITORIES, 1963-64 TO 1967-68

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (*a*)
1963–64	23,642	17,597	5,955	5,826	4,609	1,746	n.a.	n.a.	59,375
1964–65	24,368	17,925	5,962	5,887	4,734	1,805	174	187	61,042
1965–66	24,531	17,980	6,010	6,065	4,906	1,792	185	217	61,686
1966–67	24,849	18,053	6,013	6,222	5,167	1,771	187	238	62,500
1967–68	24,884	18,030	6,154	6,255	5,404	1,797	188	242	62,954

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Number by class of industry

The next tables show the number of factories in Australia classified to the industrial classes agreed upon by the Conference of Statisticians in 1930.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, AUSTRALIA(a) 1963-64 TO 1967-68

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	1,517	1,557	1,611	1,615	1,635
2. Bricks, pottery, glass, etc.	692	689	678	676	659
3. Chemicals, dyes, explosives, paints, oils, grease	1,303	1,325	1,354	1,379	1,379
4. Industrial metals, machines, conveyances	25,415	26,665	27,549	28,424	29,213
5. Precious metals, jewellery, plate	927	980	970	975	984
6. Textiles and textile goods (not dress)	1,358	1,373	1,360	1,329	1,332
7. Skins and leather (not clothing or footwear)	645	639	631	616	603
8. Clothing (except knitted)	7,447	7,450	7,271	7,141	6,965
9. Food, drink and tobacco	7,034	7,060	6,938	6,834	6,689
10. Sawmills, joinery, boxes, etc., wood turning and carving	5,422	5,454	5,402	5,414	5,336
11. Furniture of wood, bedding, etc.	2,181	2,210	2,200	2,260	2,275
12. Paper, stationery, printing, bookbinding, etc.	2,828	2,937	2,971	3,052	3,085
13. Rubber	674	705	711	685	648
14. Musical instruments	82	76	73	69	70
15. Miscellaneous products	1,494	1,575	1,627	1,701	1,746
Total, classes 1 to 15	*59,019*	*60,695*	*61,346*	*62,170*	*62,619*
16. Heat, light and power	356	347	340	330	335
Total, all classes	**59,375**	**61,042**	**61,686**	**62,500**	**62,954**

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1967-68

Class of industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment of non-metalliferous mine and quarry products	532	478	154	210	173	58	17	13	1,635
2. Bricks, pottery, glass, etc.	298	172	53	61	47	21	1	6	659
3. Chemicals, dyes, explosives, paints, oils, grease	638	404	99	109	92	31	5	1	1,379
4. Industrial metals, machines, conveyances	11,692	7,683	2,793	3,294	2,824	698	103	126	29,213
5. Precious metals, jewellery, plate	389	255	44	177	94	19	..	6	984
6. Textiles and textile goods (not dress)	432	742	33	64	37	24	..	..	1,332
7. Skins and leather (not clothing or footwear)	282	213	42	37	24	5	..	..	603
8. Clothing (except knitted)	3,157	2,331	532	511	327	82	7	18	6,965
9. Food, drink and tobacco	2,319	1,834	889	697	629	279	23	19	6,689
10. Sawmills, joinery, boxes, etc., wood turning and carving	1,887	1,371	711	442	479	403	15	28	5,336
11. Furniture of wood, bedding, etc.	830	641	303	209	218	65	2	7	2,275
12. Paper, stationery, printing, bookbinding, etc.	1,292	1,120	238	202	167	50	4	12	3,085
13. Rubber	239	166	111	52	49	19	6	6	648
14. Musical instruments	33	16	5	9	7	..	..	..	70
15. Miscellaneous products	781	559	92	149	145	20	..	..	1,746
Total, classes 1 to 15	*24,801*	*17,985*	*6,099*	*6,223*	*5,312*	*1,774*	*183*	*242*	*62,619*
16. Heat, light and power	83	45	55	32	92	23	5	..	335
Total, all classes	**24,884**	**18,030**	**6,154**	**6,255**	**5,404**	**1,797**	**188**	**242**	**62,954**

Classification of factories by number of persons employed

The classification of factories by size in the following tables on page 716 is based on the average weekly number of *persons employed during the period of operation* (including working proprietors).

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY SIZE OF FACTORY STATES AND TERRITORIES, 1967-68

Persons employed	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
NUMBER OF FACTORIES									
Under 4	10,363	5,896	2,103	3,068	2,558	728	67	72	24,855
4	1,935	1,535	616	472	482	162	20	29	5,251
5 to 10	5,680	4,384	1,591	1,207	1,126	430	63	63	14,544
11 to 20	3,033	2,564	831	681	559	225	25	46	7,964
21 to 50	2,217	1,994	569	459	440	156	10	23	5,868
51 to 100	829	825	229	193	151	44	3	5	2,279
101 to 200	447	462	114	99	54	28	..	1	1,205
201 to 300	140	156	53	21	18	12	..	2	402
301 to 400	74	73	14	17	5	1	..	..	184
401 to 500	42	44	15	11	5	2	..	..	119
501 to 750	54	54	10	9	3	2	..	1	133
751 to 1,000	25	16	4	6	1	3	..	..	55
Over 1,000	45	27	5	12	2	4	..	..	95
Total	**24,884**	**18,030**	**6,154**	**6,255**	**5,404**	**1,797**	**188**	**242**	**62,954**
NUMBER EMPLOYED DURING PERIOD OF OPERATION									
Under 4	19,155	11,624	4,274	5,483	4,796	1,380	123	160	46,995
4	7,740	6,140	2,464	1,888	1,928	648	80	116	21,004
5 to 10	39,384	30,744	11,077	8,363	7,758	2,949	429	415	101,119
11 to 20	44,256	37,579	12,208	9,960	7,999	3,248	345	678	116,273
21 to 50	69,720	62,871	17,715	14,452	13,616	5,004	356	719	184,453
51 to 100	57,837	57,913	15,937	13,550	10,711	3,183	201	348	159,680
101 to 200	62,719	65,227	16,221	13,983	7,511	3,911	..	106	169,678
201 to 300	33,409	38,070	12,727	5,185	4,270	2,722	..	483	96,866
301 to 400	25,902	25,405	4,982	5,766	1,648	360	..	..	64,063
401 to 500	18,609	19,832	6,719	4,828	2,177	881	..	..	53,046
501 to 750	32,993	32,850	6,648	5,219	1,798	1,084	..	708	81,300
751 to 1,000	21,595	13,610	3,268	5,072	835	2,595	..	..	46,975
Over 1,000	100,417	50,996	7,204	28,322	3,743	7,471	..	..	198,153
Total	**533,736**	**452,861**	**121,444**	**122,071**	**68,790**	**35,436**	**1,534**	**3,733**	**1,339,605**
Average per factory	21.45	25.12	19.73	19.52	12.73	19.72	8.16	15.43	21.28

Classes of industry

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY SIZE OF FACTORY AND CLASS OF INDUSTRY, AUSTRALIA, 1967-68

	Factories employing on the average—							
	20 and under		*21 to 100*		*101 and upwards*		*Total*	
Class of industry	*Factories*	*Persons employed*	*Factories*	*Persons employed*	*Factories*	*Persons employed*	*Factories*	*Persons employed*
1. Treatment of non-metalliferous mine and quarry products	1,425	7,594	163	6,822	47	12,418	1,635	26,834
2. Bricks, pottery, glass, etc.	406	3,227	195	8,941	58	15,075	659	27,243
3. Chemicals, dyes, explosives, paints, oils, grease	939	5,979	310	14,238	130	34,983	1,379	55,200
4. Industrial metals, machines, conveyances	25,267	128,471	3,035	125,830	911	374,652	29,213	628,953
5. Precious metals, jewellery, plate	926	3,708	54	1,791	4	664	984	6,163
6. Textiles and textile goods (not dress)	780	5,661	379	17,333	173	51,237	1,332	74,231
7. Skins and leather (not clothing or footwear)	462	2,898	124	5,370	17	3,230	603	11,498
8. Clothing (except knitted)	5,699	29,175	1,084	45,930	182	37,159	6,965	112,264
9. Food, drink and tobacco	5,500	30,258	897	39,821	292	76,389	6,689	146,468
10. Sawmills, joinery, boxes, etc., wood turning and carving	4,674	27,888	603	23,354	59	9,854	5,336	61,096
11. Furniture of wood, bedding, etc.	1,965	10,217	285	11,046	25	4,053	2,275	25,316
12. Paper, stationery, printing, bookbinding, etc.	2,290	16,848	640	27,114	155	46,816	3,085	90,778
13. Rubber	558	2,974	54	2,240	36	15,928	648	21,142
14. Musical instruments	60	279	8	346	2	207	70	832
15. Miscellaneous products	1,419	8,960	267	11,680	60	15,052	1,746	35,692
Total, classes 1 to 15	*52,370*	*284,137*	*8,098*	*341,856*	*2,151*	*697,717*	*62,619*	*1,323,710*
16. Heat, light and power	244	1,254	49	2,277	42	12,364	335	15,895
Total, all classes	**52,614**	**285,391**	**8,147**	**344,133**	**2,193**	**710,081**	**62,954**	**1,339,605**

Employment in factories

Number employed

All persons employed in the manufacturing activities of a factory are counted as factory employees. The figures relating to employment, therefore, exclude all those engaged in selling and distribution, such as salesmen, travellers collectors, carters engaged solely on delivery of manufactured goods, and retailing storemen. The figures, however, do include proprietors who work in their own business, as well as 'out-workers' (*see* page 719). From 1960–61 the occupational groupings collected have been—(i) working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draughtsmen and other laboratory and research staff; and (iv) foremen and overseers, workers in factory and others, in which were amalgamated the three former groups—(iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers, and persons working regularly at home.

Statistics of factory employment represent the equivalent average number employed over a full year of fifty-two weeks except for the classification of factories according to size (*see* page 716), which is based on the average number employed during the period of operation.

Particulars of the numbers employed in Australia are given in the table below.

FACTORIES: EMPLOYMENT, AUSTRALIA(*a*)
1963-64 TO 1967-68

Year	*Males*	*Females*	*Persons*
1963–64	918,130	291,790	1,209,920
1964–65	957,261	311,674	1,268,935
1965–66	973,411	320,412	1,293,823
1966–67	982,907	326,301	1,309,208
1967–68	998,674	332,473	1,331,147

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

The following table shows the average number of persons employed in manufacturing industries; the percentage for each State and Territory of the total number employed in factories in Australia; and the number so employed per thousand of mean population in each State and Australia.

FACTORIES: EMPLOYMENT, STATES AND TERRITORIES, 1963-64 TO 1967-68

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(a)*
Average number employed during full year (fifty-two weeks)—									
1963–64	487,753	413,120	110,696	110,813	55,705	31,833	n.a.	n.a.	1,209,920
1964–65	508,979	432,413	116,246	116,183	58,097	32,580	1,210	3,227	1,268,935
1965–66	519,364	439,149	117,581	118,343	60,282	34,315	1,294	3,495	1,293,823
1966–67	524,054	445,307	117,937	118,220	63,757	34,879	1,423	3,631	1,309,208
1967–68	531,185	449,945	120,852	121,417	67,335	35,178	1,519	3,716	1,331,147
Percentage of Australian total—									
1963–64	40.31	34.14	9.15	9.16	4.60	2.63	n.a.	n.a.	100
1964–65	40.11	34.08	9.16	9.15	4.58	2.57	0.10	0.25	100
1965–66	40.14	33.94	9.09	9.15	4.66	2.65	0.10	0.27	100
1966–67	40.03	34.01	9.01	9.03	4.87	2.66	0.11	0.28	100
1967–68	39.91	33.80	9.08	9.12	5.06	2.64	0.11	0.28	100
Per 1,000 of population—									
1963–64	120	134	69	108	70	88	n.a.	n.a.	111
1964–65	123	138	71	110	71	89	23	38	113
1965–66	123	137	71	109	72	93	23	38	113
1966–67	123	137	70	107	74	93	25	36	112
1967–68	122	136	70	108	75	93	25	34	112

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Persons employed, by class of industry

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, AUSTRALIA(a), 1963-64 TO 1967-68

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	24,704	25,683	26,011	26,104	26,685
2. Bricks, pottery, glass, etc.	25,656	27,002	27,177	26,974	27,171
3. Chemicals, dyes, explosives, paints, oils, grease	49,023	51,498	53,111	54,629	55,053
4. Industrial metals, machines, conveyances .	552,795	588,022	601,637	611,614	626,280
5. Precious metals, jewellery, plate . . .	5,543	5,900	5,926	5,990	6,108
6. Textiles and textile goods (not dress) . .	73,076	75,281	74,708	73,036	73,804
7. Skins and leather (not clothing or footwear)	12,209	12,026	11,807	11,355	11,458
8. Clothing (except knitted)	108,909	110,613	111,793	111,909	111,040
9. Food, drink and tobacco	134,487	138,768	142,153	143,510	144,441
10. Sawmills, joinery, boxes, etc., wood turning and carving	57,650	59,815	60,642	59,976	60,274
11. Furniture of wood, bedding, etc. . . .	22,545	23,251	23,740	24,390	25,055
12. Paper, stationery, printing, bookbinding, etc.	79,250	83,692	87,129	89,192	90,563
13. Rubber	20,261	20,813	20,416	20,198	21,111
14. Musical instruments	779	785	764	824	831
15. Miscellaneous products	27,422	30,057	31,154	33,431	35,469
Total, classes 1 to 15	*1,194,309*	*1,253,206*	*1,278,168*	*1,293,132*	*1,315,343*
16. Heat, light and power	15,611	15,729	15,655	16,076	15,804
Total all classes	**1,209,920**	**1,268,935**	**1,293,823**	**1,309,208**	**1,331,147**

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, STATES AND TERRITORIES, 1967-68

Class of industry(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal. mine, etc. products .	10,388	7,560	3,116	2,255	2,129	888	127	222	26,685
2. Bricks, etc. . .	13,168	7,692	1,979	2,013	1,796	359	12	152	27,171
3. Chemicals, etc.. .	27,318	17,892	2,431	3,253	3,209	920	23	7	55,053
4. Industrial metals, machines, etc. . .	267,936	192,073	47,703	72,643	31,694	12,155	870	1,206	626,280
5. Jewellery, etc. . .	2,376	2,218	365	572	288	47	..	242	6,108
6. Textiles, etc . .	20,997	43,077	2,157	2,829	758	3,986	..	..	73,804
7. Skins, leather, etc. .	5,074	3,715	1,078	994	549	48	..	..	11,458
8. Clothing, etc. . .	44,418	49,027	8,489	5,162	3,015	726	22	181	111,040
9. Food, drink, etc. .	44,357	44,143	28,420	12,264	9,340	5,413	193	311	144,441
10. Sawmills, etc. . .	19,629	15,724	9,036	5,546	6,084	3,919	78	258	60,274
11. Furniture, etc. . .	9,805	7,167	3,249	2,261	1,840	672	14	47	25,055
12. Paper, stationery, etc.	36,222	30,991	7,477	5,724	3,722	5,314	60	1,053	90,563
13. Rubber	8,202	8,503	1,983	1,724	508	139	15	37	21,111
14. Musical instruments .	540	216	22	24	29	..	..	..	831
15. Miscellaneous . .	15,652	15,060	1,256	2,329	1,010	162	..	..	35,469
Total, classes 1 to 15 .	*526,082*	*445,058*	*118,761*	*119,593*	*65,971*	*34,748*	*1,414*	*3,716*	*1,315,343*
16. Heat, light and power	5,103	4,887	2,091	1,824	1,364	430	105	..	15,804
Total all classes .	**531,185**	**449,945**	**120,852**	**121,417**	**67,335**	**35,178**	**1,519**	**3,716**	**1,331,147**

(*a*) For full titles *see* table above.

Persons employed, by occupational grouping

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY OCCUPATIONAL GROUPING STATES AND TERRITORIES, 1967-68

State or Territory	*Average number of persons employed* *Working proprietors*	*Managerial and clerical staff, etc.*	*Chemists, draughtsmen, etc.*	*Foremen and overseers, workers in factory and others(a)*	*Total*
New South Wales	13,825	78,755	12,183	426,422	531,185
Victoria	12,025	63,164	10,189	364,567	449,945
Queensland	4,690	15,216	1,704	99,242	120,852
South Australia	3,997	16,206	2,787	98,427	121,417
Western Australia	3,455	7,706	914	55,260	67,335
Tasmania	975	4,204	715	29,284	35,178
Northern Territory	88	238	4	1,189	1,519
Australian Capital Territory	156	629	27	2,904	3,716
Total males	32,906	114,791	25,447	825,530	998,674
Total females	6,305	71,327	3,076	251,765	332,473
Total persons	**39,211**	**186,118**	**28,523**	**1,077,295**	**1,331,147**

(*a*) Includes persons working regularly at home.

The term 'outworker' or 'homeworker' has acquired a special meaning in connection with manufacturing industries, and includes only persons to whom work is given out by factories to be done at home. Persons working regularly at home for factories are included in the group foremen, overseers, workers in factory, and others, and separate details are not available.

Distribution of employees according to age

The following table shows the number of each sex employed in Australia in each age group on the last pay day in June.

FACTORIES: DISTRIBUTION OF EMPLOYEES, BY AGE AND SEX, AUSTRALIA(*a*) JUNE 1964 TO JUNE 1968

EXCLUDING WORKING PROPRIETORS

	Males			*Females*			*Persons*		
June—	*Under 16 years*	*16 and under 21 years*	*21 years and over*	*Under 16 years*	*16 years under 21 years*	*21 years and over*	*Under 16 years*	*16 and under 21 years*	*21 years and over*
1964	8,632	100,164	792,711	7,130	55,533	228,170	15,762	155,697	1,020,881
1965	7,614	104,477	821,711	5,920	57,226	245,437	13,534	161,703	1,067,148
1966	6,690	105,902	827,971	5,364	56,104	251,428	12,054	162,006	1,079,399
1967	5,703	107,285	842,097	5,005	54,727	262,494	10,708	162,012	1,104,591
1968	4,963	105,691	862,678	4,387	52,546	270,786	9,350	158,237	1,133,464

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Distribution of sexes in factories

Average number of males and females employed

FACTORIES: MALES AND FEMALES EMPLOYED, STATES AND TERRITORIES
1963-64 TO 1967-68

State or Territory	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
MALES					
New South Wales	366,250	379,672	387,181	390,087	395,838
Victoria	295,440	307,006	310,303	314,017	316,108
Queensland	91,123	95,328	96,150	96,082	98,027
South Australia	90,933	94,690	96,194	96,076	98,929
Western Australia	48,163	50,065	51,464	53,981	56,835
Tasmania	26,221	26,768	28,041	28,364	28,550
Northern Territory	n.a.	1,098	1,182	1,308	1,380
Australian Capital Territory	n.a.	2,634	2,896	2,992	3,007
Australia(*a*)	**918,130**	**957,261**	**973,411**	**982,907**	**998,674**
FEMALES					
New South Wales	121,503	129,307	132,183	133,967	135,347
Victoria	117,680	125,407	128,846	131,290	133,837
Queensland	19,573	20,918	21,431	21,855	22,825
South Australia	19,880	21,493	22,149	22,144	22,488
Western Australia	7,542	8,032	8,818	9,776	10,500
Tasmania	5,612	5,812	6,274	6,515	6,628
Northern Territory	n.a.	112	112	115	139
Australian Capital Territory	n.a.	593	599	639	709
Australia(*a*)	**291,790**	**311,674**	**320,412**	**326,301**	**332,473**
MASCULINITY(*b*) OF PERSONS EMPLOYED					
New South Wales	301	294	293	291	292
Victoria	251	245	241	239	236
Queensland	466	456	449	440	429
South Australia	457	441	434	434	440
Western Australia	639	623	584	552	541
Tasmania	467	461	447	435	431
Northern Territory	n.a.	980	1,055	1,137	993
Australian Capital Territory	n.a.	444	483	468	424
Australia(*a*)	**315**	**307**	**304**	**301**	**300**

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory. (*b*) Number of males per 100 females.

Employment of females in particular industries

The majority of females in manufacturing industries are employed in four classes, namely: 4, Industrial metals, machines, etc.; 6, Textiles; 8, Clothing; and 9, Food, drink and tobacco. In 1967–68 these industries accounted for 76.75 per cent of all females in factories. In two classes only did the number of females exceed the number of males—in Class 6, Textiles, where there were 137 females to every 100 males, and in Class 8, Clothing, with 300 females to every 100 males. The following table shows the average number of males and females employed in each of the four classes.

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES
STATES AND TERRITORIES, 1967-68

Class of industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Males—									
Industrial metals, etc.	228,877	162,487	43,729	64,263	29,495	11,357	807	1,100	542,115
Textiles and textile goods (not dress)	9,024	17,696	915	1,313	368	1,772	. .	. .	31,088
Clothing (except knitted)	10,295	12,731	1,970	1,656	767	281	13	56	27,769
Food, drink and tobacco	29,623	28,826	22,507	7,940	6,515	3,651	158	216	99,436
All other classes	118,019	94,368	28,906	23,757	19,690	11,489	402	1,635	298,266
Total males	*395,838*	*316,108*	*98,027*	*98,929*	*56,835*	*28,550*	*1,380*	*3,007*	*998,674*
Females—									
Industrial metals, etc.	39,059	29,586	3,974	8,380	2,199	798	63	106	84,165
Textiles and textile goods (not dress)	11,973	25,381	1,242	1,516	390	2,214	. .	. .	42,716
Clothing (except knitted)	34,123	36,296	6,519	3,506	2,248	445	9	125	83,271
Food, drink and tobacco	14,734	15,317	5,913	4,324	2,825	1,762	35	95	45,005
All other classes	35,458	27,257	5,177	4,762	2,838	1,409	32	383	77,316
Total females	*135,347*	*133,837*	*22,825*	*22,488*	*10,500*	*6,628*	*139*	*709*	*332,473*

Salaries and wages paid, value of materials used, output, and production

In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

The gross value of factory output for 1967–68 was $17,094 million, of which $9,104 million (53.3 per cent) was the value of the materials used, including containers, etc., tools replaced, and repairs to plant and buildings, and $559 million the value of the power, fuel, light, water, and lubricating oil used. The difference between the sum of the last two amounts and the gross value of output, namely, $7,431 million, represents the net value of factory production, defined as 'the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production'. Depreciation, however, is not deducted (*see* page 727). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories.

Salaries and wages paid

By class and industry

FACTORIES: SALARIES AND WAGES PAID, BY CLASS OF INDUSTRY
STATES AND TERRITORIES, 1967-68
($'000)

Class of industry(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal, mine, etc. products	34,510	23,989	9,560	6,654	6,202	2,727	424	873	84,938
2. Bricks, etc.	40,807	23,275	5,878	5,818	5,334	1,044	(*b*)	(*b*)	82,699
3. Chemicals, etc.	88,894	59,759	7,551	10,039	10,524	3,269	(*b*)	(*b*)	180,180
4. Industrial metals, machines, etc.	801,962	570,717	124,210	209,538	85,426	35,538	2,919	3,515	1,833,825
5. Jewellery, etc.	5,148	5,493	726	1,049	529	88	. .	924	13,956
6. Textiles, etc.	49,189	99,945	4,305	6,444	1,560	8,859	. .	. .	170,302
7. Skins, leather, etc.	12,030	9,070	2,617	2,675	1,296	121	. .	. .	27,810
8. Clothing, etc.	82,053	96,531	12,980	8,564	4,340	1,223	47	348	206,086
9. Food, drink, etc.	117,308	118,363	76,920	29,242	22,575	13,591	592	814	379,405
10. Sawmills, etc.	50,812	40,307	20,130	12,794	15,402	9,655	250	781	150,131
11. Furniture, etc.	24,338	16,809	6,891	4,563	3,886	1,329	(*b*)	(*b*)	57,964
12. Paper, stationery, etc.	107,501	92,314	20,102	15,440	10,044	16,543	185	3,292	265,422
13. Rubber	24,068	26,085	4,992	5,590	1,352	355	48	112	62,601
14. Musical instruments	1,388	581	36	36	55	. .	. .	. .	2,097
15. Miscellaneous	41,256	43,390	2,870	5,267	2,042	304	. .	. .	95,130
Total, classes 1 to 15	*1,481,266*	*1,226,628*	*299,768*	*323,713*	*170,567*	*94,646*	*4,673*	*11,285*	*3,612,546*
16. Heat, light and power	16,801	17,588	6,187	6,347	4,534	1,590	310	. .	53,357
Total, all classes	**1,498,067**	**1,244,216**	**305,955**	**330,060**	**175,100**	**96,236**	**4,983**	**11,285**	**3,665,902**

(*a*) For full titles *see* table on page 723. (*b*) Not available for publication.

Totals and averages. The following table shows the total amount of salaries and wages paid, and the average amount paid, according to sex, per employee in each State and Territory. The figures exclude working proprietors and the amounts drawn by them.

In comparing the figures in the following table regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there are a large number of employees in Class 8, Clothing, comprising a relatively high percentage of women and children.

FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID STATES AND TERRITORIES, 1963-64 TO 1967-68

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(a)*
MALES									
Total amount paid ($'000)—									
1963–64 . .	927,806	747,177	196,484	215,127	99,978	63,007	n.a.	n.a.	2,249,580
1964–65 . .	1,034,044	840,704	226,329	245,565	110,368	68,183	3,298	7,854	2,536,347
1965–66 . .	1,092,517	877,256	239,885	252,260	123,022	73,932	3,666	8,819	2,671,358
1966–67 . .	1,174,476	949,745	251,545	266,640	140,114	80,685	4,146	9,306	2,876,656
1967–68 . .	1,258,255	1,011,261	272,301	295,065	159,487	85,329	4,721	9,968	3,096,386
Average per male employee ($)—									
1963–64 . .	2,618	2,621	2,254	2,457	2,201	2,491	n.a.	n.a.	2,542
1964–65 . .	2,812	2,833	2,476	2,689	2,337	2,644	3,242	3,091	2,746
1965–66 . .	2,913	2,921	2,600	2,720	2,538	2,730	3,333	3,172	2,843
1966–67 . .	3,105	3,120	2,725	2,880	2,755	2,939	3,354	3,238	3,028
1967–68 . .	3,277	3,299	2,888	3,092	2,974	3,085	3,623	3,462	3,206
FEMALES									
Total amount paid ($'000)—									
1963–64 . .	173,214	165,247	22,278	25,188	8,537	7,575	n.a.	n.a.	402,040
1964–65 . .	195,912	187,788	26,029	28,659	9,609	8,332	185	848	457,362
1965–66 . .	211,163	199,977	28,160	30,691	11,149	9,030	192	1,047	491,411
1966–67 . .	225,270	217,693	30,664	32,466	13,483	10,071	203	1,177	531,027
1967–68 . .	239,812	232,956	33,654	34,995	15,613	10,908	263	1,317	569,516
Average per female employee ($)—									
1963–64 . .	1,448	1,432	1,182	1,312	1,163	1,367	n.a.	n.a.	1,406
1964–65 . .	1,537	1,526	1,290	1,372	1,228	1,454	1,799	1,469	1,496
1965–66 . .	1,623	1,584	1,369	1,420	1,295	1,457	1,904	1,806	1,565
1966–67 . .	1,708	1,691	1,462	1,502	1,411	1,567	1,972	1,904	1,660
1967–68 . .	1,798	1,773	1,538	1,592	1,522	1,668	2,051	1,933	1,746
PERSONS									
Total amount paid ($'000)—									
1963–64 . .	1,101,021	912,424	218,762	240,315	108,515	70,582	n.a.	n.a.	2,651,620
1964–65 . .	1,229,957	1,028,492	252,358	274,225	119,978	76,515	3,483	8,702	2,993,709
1965–66 . .	1,303,680	1,077,234	268,046	282,951	134,171	82,963	3,859	9,866	3,162,769
1966–67 . .	1,399,746	1,167,437	282,209	299,105	153,597	90,756	4,349	10,483	3,407,683
1967–68 . .	1,498,067	1,244,216	305,955	330,060	175,100	96,236	4,983	11,285	3,665,902
Average per employee ($)—									
1963–64 . .	2,323	2,278	2,064	2,251	2,057	2,290	n.a.	n.a.	2,265
1964–65 . .	2,484	2,450	2,262	2,444	2,180	2,427	3,110	2,791	2,435
1965–66 . .	2,581	2,525	2,376	2,474	2,351	2,493	3,213	2,936	2,523
1966–67 . .	2,744	2,696	2,491	2,619	2,543	2,678	3,248	3,002	2,684
1967–68 . .	2,896	2,841	2,634	2,811	2,741	2,814	3,482	3,170	2,838

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

The following table shows, by class of industry, the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draughtsmen and other laboratory and research staff, and those paid to other employees. Amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF, ETC. AND OTHER EMPLOYEES, BY CLASS OF INDUSTRY, AUSTRALIA, 1967-68

Class of industry	*Managers, clerical staff, chemists, draughtsmen, etc.*		*All other employees*	
	Males	*Females*	*Males*	*Females*
	$'000	$'000	$'000	$'000
1. Treatment of non-metalliferous mine and quarry products	14,226	2,394	67,937	381
2. Bricks, pottery, glass, etc.	10,203	2,165	67,141	3,190
3. Chemicals, dyes, explosives, paints, oils, grease	48,357	10,655	108,349	12,819
4. Industrial metals, machines, conveyances	327,091	63,546	1,355,680	87,507
5. Precious metals, jewellery, plate	2,076	640	9,876	1,364
6. Textiles and textile goods (not dress)	19,465	7,602	76,938	66,297
7. Skins and leather (not clothing or footwear)	3,383	911	17,711	5,806
8. Clothing (except knitted)	17,597	9,290	52,285	126,914
9. Food, drink and tobacco	59,682	18,718	243,914	57,092
10. Sawmills, joinery, boxes, etc., wood turning and carving	19,062	4,241	124,002	2,826
11. Furniture of wood, bedding, etc.	7,157	2,743	41,075	6,989
12. Paper, stationery, printing, bookbinding, etc.	41,502	12,664	181,969	29,287
13. Rubber	10,878	2,396	43,473	5,853
14. Musical instruments	256	103	1,404	335
15. Miscellaneous products	17,982	5,817	52,692	18,638
Total, classes 1 to 15	*598,918*	*143,883*	*2,444,446*	*425,299*
16. Heat, light and power	6,044	275	46,978	59
Total, all classes	**604,963**	**144,158**	**2,491,423**	**425,358**
	$	$	$	$
Average paid per employee	4,314	1,938	3,018	1,690

Power, fuel and light used

Value by class of industry

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(*a*), BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry(b)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metalliferous mine, etc. products	12,714	6,628	3,021	2,272	1,883	1,131	27	53	27,728
2. Bricks, etc.	10,416	6,622	1,811	1,749	2,034	435	(*c*)	(*c*)	23,268
3. Chemicals, etc.	28,234	21,313	3,512	4,779	5,360	1,083	(*c*)	(*c*)	64,375
4. Industrial metals, etc.	125,799	34,950	11,244	27,512	7,153	9,304	74	61	216,098
5. Jewellery, etc.	397	467	51	116	80	6	. .	186	1,304
6. Textiles, etc.	4,039	7,268	278	532	161	659	. .	. .	12,938
7. Skins, leather, etc.	843	942	218	278	152	12	. .	. .	2,444
8. Clothing, etc.	2,223	2,578	429	342	198	85	5	26	5,886
9. Food, drink, etc.	15,722	16,624	8,962	3,392	3,162	1,747	146	78	49,834
10. Sawmills, etc.	3,389	2,280	1,428	960	947	954	8	17	9,984
11. Furniture, etc.	593	421	136	120	84	34	(*c*)	(*c*)	1,391
12. Paper, stationery, etc.	5,463	8,174	1,341	2,039	701	3,699	14	171	21,602
13. Rubber	2,491	3,370	512	588	147	42	8	17	7,173
14. Musical instruments	85	27	2	1	1	. .	. .	. .	115
15. Miscellaneous	2,572	4,142	144	287	116	12	. .	. .	7,272
Total, classes 1 to 15	*214,979*	*115,808*	*33,086*	*44,967*	*22,180*	*19,206*	*359*	*830*	*451,414*
16. Heat, light and power	37,661	27,278	18,785	11,238	11,381	279	798	. .	107,421
Total, all classes	**252,639**	**143,086**	**51,871**	**56,205**	**33,561**	**19,485**	**1,157**	**830**	**558,834**

(*a*) Includes value of lubricants and water. (*b*) For full titles *see* table above. (*c*) Not available for publication.

FACTORIES: TOTAL VALUE OF POWER, FUEL AND LIGHT USED(*a*) BY CLASS OF INDUSTRY, AUSTRALIA(*b*), 1963-64 TO 1967-68

($'000)

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	24,245	26,575	26,455	26,987	27,728
2. Bricks, pottery, glass, etc.	19,761	20,552	20,337	21,128	23,268
3. Chemicals, dyes, explosives, paints, oils, grease	45,500	50,468	52,557	57,864	64,375
4. Industrial metals, machines, conveyances	158,843	171,268	180,606	199,444	216,098
5. Precious metals, jewellery, plate	851	1,052	1,132	1,190	1,304
6. Textiles and textile goods (not dress)	10,840	11,271	11,630	12,059	12,938
7. Skins and leather (not clothing or footwear)	2,428	2,424	2,358	2,321	2,444
8. Clothing (except knitted)	5,227	5,452	5,545	5,770	5,886
9. Food, drink and tobacco	41,577	43,967	46,025	47,545	49,834
10. Sawmills, joinery, boxes, etc., wood turning and carving	8,553	9,257	9,373	9,539	9,984
11. Furniture of wood, bedding, etc.	1,096	1,156	1,218	1,285	1,391
12. Paper, stationery, printing, bookbinding, etc.	15,843	17,280	18,551	20,550	21,602
13. Rubber	6,285	6,386	6,550	6,838	7,173
14. Musical instruments	96	95	91	105	115
15. Miscellaneous products	4,672	5,304	5,577	6,314	7,272
Total, classes 1 to 15	*345,818*	*372,506*	*388,007*	*418,940*	*451,414*
16. Heat, light and power	91,335	94,127	99,337	103,360	107,421
Total, all classes	**437,153**	**466,633**	**487,343**	**522,300**	**558,834**

(*a*) Includes value of lubricants and water. (*b*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Total value

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(*a*), STATES AND TERRITORIES 1963-64 TO 1967-68

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(b)*
1963–64	210,157	114,648	37,462	34,772	23,749	16,364	n.a.	n.a.	437,153
1964–65	217,548	125,161	38,749	39,295	26,045	18,327	865	644	466,633
1965–66	223,517	127,858	43,791	44,066	27,314	19,181	856	760	487,343
1966–67	238,113	134,399	46,949	51,302	30,031	19,826	946	735	522,300
1967–68	252,639	143,086	51,871	56,205	33,561	19,485	1,157	830	558,834

(*a*) Includes value of lubricants and water. (*b*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Value of items

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(*a*) STATES AND TERRITORIES, 1967-68

($'000)

Item of power, fuel, etc.	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Coal, black	39,219	2,444	21,977	(*b*)7,416	5,540	564	..	94	77,254
,, brown	2	19,760	..	(*c*)	..	..	..	..	19,763
Brown coal briquettes	10	9,937	..	(*c*)	..	(*c*)	..	(*c*)	9,947
Coke	47,620	1,106	1,159	12,684	632	686	..	..	63,887
Wood	675	542	379	460	582	85	2	(*c*)	2,726
Fuel oil	32,160	27,480	8,823	13,512	13,035	5,191	838	179	101,219
Tar (fuel)	2,653	163	14	117	47	14	29	2	3,038
Electricity	77,657	63,558	14,549	16,014	8,935	11,366	219	486	192,784
Gas	23,545	4,710	527	2,105	267	92	(*c*)	(*c*)	31,247
Other (charcoal, etc.)	13,912	3,122	767	1,083	2,554	653	3	7	22,101
Water	10,928	7,249	2,458	1,806	1,219	546	32	35	24,273
Lubricating oils	4,259	3,014	1,217	1,009	749	287	35	26	10,595
Total	**252,639**	**143,086**	**51,871**	**56,205**	**33,561**	**19,485**	**1,157**	**830**	**558,834**

(*a*) Includes value of lubricants and water. (*b*) Includes $5,815,603 the value of 2,078,280 tons of sub-bituminous Leigh Creek coal. (*c*) Less than $500.

Quantities of fuel used

FACTORIES: QUANTITIES OF FUEL USED, STATES AND TERRITORIES, 1967-68

Fuel		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Coal, black	'000 tons	8,118	241	2,802	(*a*)2,235	912	56	. .	6	14,370
,, brown	,,	1	18,190	. .	(*b*)	. .	. .	. .	. .	18,191
Brown coal briquettes	,,	1	855	. .	(*b*)	. .	(*b*)	. .	(*b*)	856
Coke	,,	2,821	45	32	598	23	19	. .	. .	3,537
Wood	,,	138	133	94	235	158	35	(*b*)	(*b*)	792
Fuel oil	'000 gal	459,771	375,696	119,532	190,774	189,613	67,314	8,483	1,306	1,412,489
Tar (fuel)	'000 tons	164	8	1	10	3	1	3	(*b*)	190

(*a*) Includes 2,078,280 tons of Leigh Creek coal. (*b*) Less than 500 tons.

Value of materials used

By class of industry. The value of materials used includes the value of containers, packing, etc., the cost of tools replaced, and repairs to plant.

FACTORIES: VALUE OF MATERIALS USED, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metalliferous mine, etc. products	136,295	63,703	22,813	17,981	18,342	5,978	1,549	3,586	270,249
2. Bricks, etc.	40,768	25,138	5,334	5,956	3,849	700	(*b*)	(*b*)	82,482
3. Chemicals, etc.	445,473	320,707	75,981	63,339	98,854	9,342	(*b*)	(*b*)	1,014,123
4. Industrial metals, etc.	1,758,591	946,395	319,829	450,916	158,212	71,091	3,313	4,234	3,712,583
5. Jewellery, etc.	6,681	5,815	729	877	392	72	. .	1,463	16,030
6. Textiles, etc.	119,996	238,882	9,254	11,949	4,959	19,200	. .	. .	404,240
7. Skins, leather, etc.	30,343	19,170	5,081	10,006	1,653	686	. .	. .	66,939
8. Clothing, etc.	138,787	139,926	14,511	10,127	4,467	1,048	29	219	309,113
9. Food, drink, etc.	531,204	596,795	503,808	131,253	111,632	61,749	1,411	2,559	1,940,410
10. Sawmills, etc.	116,588	80,082	38,989	26,809	29,298	23,978	423	1,321	317,488
11. Furniture, etc.	48,123	34,615	14,646	9,212	8,903	2,702	(*b*)	(*b*)	118,581
12. Paper, stationery, etc.	200,791	186,814	35,322	26,666	15,775	28,862	99	1,695	496,025
13. Rubber	49,466	54,136	10,725	9,197	3,254	732	97	420	128,027
14. Musical instruments	2,855	694	36	15	14	. .	. .	. .	3,614
15. Miscellaneous	69,753	87,290	5,410	10,218	3,423	195	. .	. .	176,289
Total, classes 1 to 15	*3,695,714*	*2,800,162*	*1,062,468*	*784,522*	*463,028*	*226,337*	*7,581*	*16,382*	*9,056,193*
16. Heat, light and power	17,181	13,262	10,076	3,496	2,526	1,236	414	. .	48,190
Total, all classes	**3,712,895**	**2,813,424**	**1,072,543**	**788,018**	**465,554**	**227,573**	**7,995**	**16,382**	**9,104,383**

(*a*) For full titles *see* table below. (*b*) Not available for publication.

FACTORIES: VALUE OF MATERIALS USED, BY CLASS OF INDUSTRY, AUSTRALIA(*a*) 1963-64 TO 1967-68

($'000)

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	193,603	219,634	232,826	245,768	270,249
2. Bricks, pottery, glass, etc.	59,540	69,275	69,239	75,127	82,482
3. Chemicals, dyes, explosives, paints, oils grease	726,437	802,349	850,221	933,329	1,014,123
4. Industrial metals, machines, conveyances	2,713,241	3,102,783	3,213,745	3,422,377	3,712,583
5. Precious metals, jewellery, plate	11,459	14,195	14,405	14,911	16,030
6. Textiles and textile goods (not dress)	355,503	374,764	370,844	394,860	404,240
7. Skins and leather (not clothing or footwear)	75,641	72,518	73,642	73,288	66,939
8. Clothing (except knitted)	265,805	280,195	282,823	304,160	309,113
9. Food, drink and tobacco	1,560,847	1,652,933	1,728,394	1,837,269	1,940,410
10. Sawmills, joinery, boxes, etc., wood turning and carving	255,936	282,792	286,639	299,345	317,488
11. Furniture of wood, bedding, etc.	94,283	104,177	104,168	109,226	118,581
12. Paper, stationery, printing, bookbinding, etc.	367,028	409,999	431,037	462,333	496,025
13. Rubber	109,355	119,250	118,436	119,819	128,027
14. Musical instruments	3,031	3,336	3,161	3,797	3,614
15. Miscellaneous products	105,742	122,921	126,339	151,070	176,289
Total, classes 1 to 15	*6,897,451*	*7,631,121*	*7,905,917*	*8,446,680*	*9,056,193*
16. Heat, light and power	38,078	42,847	44,698	46,864	48,190
Total, all classes	**6,935,530**	**7,673,967**	**7,950,615**	**8,493,544**	**9,104,383**

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Total amount

FACTORIES: VALUE OF MATERIALS USED, STATES AND TERRITORIES 1963-64 TO 1967-68

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust(a)*
1963–64	2,859,622	2,190,398	812,924	599,658	300,798	172,130	n.a.	n.a.	6,935,530
1964–65	3,212,677	2,425,961	824,681	668,946	329,740	195,972	4.550	11,440	7,673,967
1965–66	3,266,547	2,469,372	924,427	698,996	362,634	209,794	5,497	13,349	7,950,615
1966–67	3,466,134	2,671,315	982,896	728,094	399,406	223,566	7,214	14,918	8,493,544
1967–68	3,712,895	2,813,424	1,072,543	788,018	465,554	227,573	7,995	16,382	9,104,383

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Value of output

By class of industry. The value of the output of factories in the various classes in each State and Territory in 1967–68 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done, such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output, is the net value of factory production (*see* page 727).

FACTORIES: VALUE OF OUTPUT, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal, mine, etc. products	226,700	124,125	48,919	39,197	39,125	15,221	2,824	5,553	501,664
2. Bricks, etc.	130,585	78,438	18,990	19,154	17,168	3,134	(*b*)	(*b*)	269,138
3. Chemicals, etc.	812,247	550,678	123,581	106,828	151,640	19,614	(*b*)	(*b*)	1,765,495
4. Industrial metals, etc.	3,297,441	1,903,178	562,325	838,189	324,668	148.969	7,879	9,663	7,092,313
5. Jewellery, etc.	16,948	16,362	1,930	3,084	1,680	233	..	3,451	43,688
6. Textiles, etc.	223,550	426,636	17,722	23,392	8,134	32,762	..	..	732,196
7. Skins, leather, etc.	52,394	35,767	9,841	14,506	4,036	871	..	..	117,414
8. Clothing, etc.	293,983	300,436	38,376	25,692	12,187	3,465	91	909	675,075
9. Food, drink, etc.	864,475	907,400	688,461	203,335	168,359	88,500	2,877	4,321	2,927,728
10. Sawmills, etc.	214.317	149,536	77,926	50,895	60,248	42,894	783	2,593	599,192
11. Furniture, etc.	93,467	65,287	26,668	17,790	16,638	5,044	(*b*)	(*b*)	225,584
12. Paper, stationery, etc.	440,823	381,686	73,546	61,523	36,186	65,207	386	7,243	1,066,600
13. Rubber	89,951	108,131	21,716	19,765	6,267	1,571	249	795	248,446
14. Musical instruments	9,927	1,562	103	78	98	..	..	..	11,768
15. Miscellaneous	149,658	171,665	12.146	21,839	7,811	653	..	..	363,772
Total, classes 1 to 15	*6.916,466*	*5,220,888*	*1,722,249*	*1,445,204*	*854,246*	*428,138*	*16,300*	*36,583*	*16,640,075*
16. Heat, light and power	180,050	130,422	60,018	30,909	33,126	16,938	2,531	..	453,995
Total, all classes	**7,096,517**	**5,351,311**	**1,782,267**	**1,476,113**	**887,372**	**445,076**	**18,831**	**36,583**	**17,094,070**

(*a*) For full titles *see* table on page 727. (*b*) Not available for publication.

FACTORIES: VALUE OF OUTPUT, BY CLASS OF INDUSTRY, AUSTRALIA(*a*) 1963-64 TO 1967-68

($'000)

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	366,053	413,235	427,652	459,415	501,664
2. Bricks, pottery, glass, etc.	193,031	221,894	225,147	242,627	269,138
3. Chemicals, dyes, explosives, paints, oils, grease	1,221,410	1,357,619	1,445,480	1,618,841	1,765,495
4. Industrial metals, machines, conveyances	5,046,075	5,760,129	6,042,120	6,534,706	7,092,313
5. Precious metals, jewellery, plate	31,062	37,024	38,424	40,857	43,688
6. Textiles and textile goods (not dress)	618,816	665,617	665,227	709,976	732,196
7. Skins and leather (not clothing or footwear)	119,037	117,092	119,112	119,703	117,414
8. Clothing (except knitted)	552,447	587,946	607,336	651,432	675,075
9. Food, drink and tobacco	2,302,914	2,454,023	2,592,748	2,777,071	2,927,728
10. Sawmills, joinery, boxes, etc., wood turning and carving	470,768	524,043	536,796	565,434	599,192
11. Furniture of wood, bedding, etc.	171,290	189,742	195,992	210,182	225,584
12. Paper, stationery, printing, bookbinding, etc.	762,610	854,204	909,061	986,199	1,066,600
13. Rubber	201,343	214,692	215,194	226,126	248,446
14. Musical instruments	8,028	9,300	9,285	10,801	11,768
15. Miscellaneous products	221,084	252,569	261,887	316,179	363,772
Total, classes 1 to 15	*12,285,964*	*13,659,129*	*14,291,460*	*15,469,550*	*16,640,075*
16. Heat, light and power	356,722	378,225	398,360	423,295	453,995
Total, all classes	**12,642,686**	**14,037,355**	**14,689,819**	**15,892,845**	**17,094,070**

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Total value

FACTORIES: VALUE OF OUTPUT, STATES AND TERRITORIES, 1963-64 TO 1967-68

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(a)*
1963–64	5,337,695	4,054,822	1,292,260	1,061,786	555,058	341,065	n.a.	n.a.	12,642,686
1964–65	5,951,702	4,500,786	1,341,853	1,206,830	616,422	381,549	12,068	26,145	14,037,355
1965–66	6,154,835	4,624,915	1,511,214	1,270,539	678,751	404,581	13,456	31,528	14,689,819
1966–67	6,632,474	5,041,051	1,622,451	1,343,160	765,224	437,964	16,007	34,514	15,892,845
1967–68	7,096,517	5,351,311	1,782,267	1,476,113	887,372	445,076	18,831	36,583	17,094,070

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Value of production

By class of industry. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as 'the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production'.

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the 'value of output'. Because of the difficulty experienced in securing accurate figures for depreciation, however, it was subsequently decided that no deduction should be made on this account. All the deductions mentioned above, with the exception of depreciation, are included in the items 'value of materials used' and 'value of fuel used' as defined above. The net value of production as given in the following tables is obtained, therefore, by deducting only 'value of materials used' and 'value of fuel used' from the 'value of output'. The value of factory production, therefore, approximates 'net value added' in the manufacturing process.

Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that when wages and salaries are deducted from the value of production the whole of the 'surplus' is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising, and other overhead charges, as well as depreciation, also have to be taken into account.

The following table shows the value of production in each State and Territory for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry(a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal, mine, etc. products	77,691	53,794	23,085	18,944	18,900	8,112	1,248	1,914	203,687
2. Bricks, etc.	79,400	46,678	11,845	11,449	11,284	1,999	(b)	(b)	163,388
3. Chemicals, etc.	338,540	208,658	44,089	38,710	47,426	9,189	(b)	(b)	686,997
4. Industrial metals, etc.	1,413,051	921,834	231,252	359,761	159,303	68,573	4,491	5,367	3,163,632
5. Jewellery, etc.	9,870	10,080	1,149	2,091	1,207	155	..	1,801	26,355
6. Textiles, etc.	99,514	180,486	81,90	10,911	3,015	12,902	..	..	315,017
7. Skins, leather, etc.	21,208	15,655	4,542	4,222	2,230	173	..	..	48,031
8. Clothing, etc.	152,973	157,932	23,436	15,160	7,523	2,332	57	664	360,076
9. Food, drink, etc.	317,550	293,980	175,692	68,689	53,565	25,004	1,321	1,684	937,484
10. Sawmills, etc.	94,340	67,173	37,509	23,126	30,003	17,962	352	1,254	271,719
11. Furniture, etc.	44,752	30,251	11,886	8,458	7,651	2,307	(b)	(b)	105,612
12. Paper, stationery, etc.	234,570	186,698	36,884	32,818	19,709	32,646	273	5,376	548,973
13. Rubber	37,994	50,626	10,480	9,980	2,866	797	144	359	113,245
14. Musical instruments	6,988	841	66	62	83	..	..	..	8,040
15. Miscellaneous	77,334	80,234	6,592	11,333	4,273	445	..	..	180,211
Total, classes 1 to 15	*3,005,773*	*2,304,919*	*626,696*	*615,715*	*369,037*	*182,596*	*8,360*	*19,372*	*7,132,468*
16, Heat, light and power	125,209	89,882	31,157	16,174	19,220	15,423	1,320	..	298,384
Total, all classes	**3,130,982**	**2,394,801**	**657,853**	**631,890**	**388,257**	**198,019**	**9,680**	**19,372**	**7,430,853**

(*a*) For full titles *see* table below. (*b*) Not available for publication.

FACTORIES: VALUE OF PRODUCTION, BY CLASS OF INDUSTRY AUSTRALIA(*a*) 1963-64 TO 1967-68

($'000)

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	148,204	167,026	168,371	186,660	203,687
2. Bricks, pottery, glass, etc.	113,729	132,067	135,571	146,372	163,388
3. Chemicals, dyes, explosives, paints, oils, grease	449,473	504,802	542,702	627,647	686,997
4. Industrial metals, machines, conveyances	2,173,990	2,486,078	2,647,768	2,912,885	3,163,632
5. Precious metals, jewellery, plate	18,752	21,777	22,886	24,756	26,355
6. Textiles and textile goods (not dress)	252,473	279,582	282,753	303,057	315,017
7. Skins and leather (not clothing or footwear)	40,968	42,150	43,111	44,093	48,031
8. Clothing (except knitted)	281,415	302,300	318,968	341,502	360,076
9. Food, drink and tobacco	700,489	757,122	818,329	892,257	937,484
10. Sawmills, joinery, boxes, etc., wood turning and carving	206,278	231,995	240,785	256,551	271,719
11. Furniture of wood, bedding, etc.	75,911	84,409	90,606	99,671	105,612
12. Paper, stationery, printing, bookbinding, etc.	379,738	426,925	459,473	503,315	548,973
13. Rubber	85,704	89,057	90,208	99,469	113,245
14. Musical instruments	4,901	5,868	6,032	6,899	8,040
15. Miscellaneous products	110,670	124,344	129,971	158,795	180,211
Total, classes 1 to 15	*5,042,695*	*5,655,502*	*5,997,536*	*6,603,930*	*7,132,468*
16. Heat, light and power	227,308	241,251	254,325	273,072	298,384
Total, all classes	**5,270,003**	**5,896,754**	**6,251,861**	**6,877,001**	**7,430,853**

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Total and average values. The value of production and the amount per person employed and per head of population are shown in the following table.

FACTORIES: VALUE OF PRODUCTION—TOTALS AND AVERAGES STATES AND TERRITORIES, 1963-64 TO 1967-68

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(a)*
Total value ($'000)—									
1963–64 . .	2,267,917	1,749,776	441,873	427,356	230,511	152,571	n.a.	n.a.	5,270,003
1964–65 . .	2,521,476	1,949,665	478,423	498,588	260,637	167,251	6,654	14,060	5,896,754
1965–66 . .	2,664,771	2,027,685	542,996	527,477	288,803	175,606	7,103	17,418	6,251,861
1966–67 . .	2,928,227	2,235,337	592,607	563,764	335,788	194,571	7,847	18,860	6,877,001
1967–68 . .	3,130,982	2,394,801	657,853	631,890	388,257	198,019	9,680	19,372	7,430,853
Average per person employed ($)—									
1963–64 . .	4,650	4,236	3,992	3,857	4,138	4,793	n.a.	n.a.	4,356
1964–65 . .	4,954	4,509	4,116	4,291	4,486	5,134	5,499	4,357	4,647
1965–66 . .	5,131	4,617	4,618	4,457	4,791	5,117	5,489	4,984	4,854
1966–67 . .	5,588	5,020	5,025	4,769	5,267	5,578	5,514	5,194	5,261
1967–68 . .	5,894	5,322	5,443	5,204	5,766	5,629	6,373	5,213	5,582

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Indexes of Factory Production

The tables following contain annual indexes of factory production for the years 1949–50 to 1967–68. They present indexes, on 1955–56 and 1959–60 bases respectively, for classes and combinations of classes of manufacturing industry. The indexes are designed to provide broad measures of growth in manufacturing industry over the period.

The indexes have been compiled by methods which are commonly adopted, the indexes for classes and combinations of classes comprising in fact indexes of the output of factory sub-classes at constant prices combined by the use of base period value-added weights. Indexes of this type are subject to a number of limitations, and can be compiled only on the basis of many assumptions and approximations. An understanding of the basis of the indexes is therefore essential if inappropriate use of the indexes is to be avoided. For a comprehensive treatment of concepts, sources, and methods, reference should be made to the annual mimeographed bulletin *Indexes of Factory Production*. This bulletin also contains indexes for a considerable number of individual factory sub-classes.

INDEXES OF FACTORY PRODUCTION(*a*): AUSTRALIA(*b*), 1949-50 TO 1959-60

(*Base of each index: year* 1955–56 = 100)

Class of industry	*Proportion of total value added(c) 1955–56*	*1949–50*	*1950–51*	*1951–52*	*1952–53*	*1953–54*	*1954–55*	*1955–56*	*1956–57*	*1957–58*	*1958–59*	*1959–60*
	per cent											
1. Treatment non-metal, mine, etc. products .	2.3	63	72	76	73	81	94	100	104	112	121	141
2. Bricks, etc. . .	2.1	76	78	86	78	89	96	100	92	96	103	117
3. Chemicals, etc. .	7.9	51	59	61	58	69	85	100	111	123	132	146
4. Industrial metals, etc.	39.8	63	74	78	75	83	93	100	102	114	122	137
6. Textiles, etc. . .	5.5	83	89	79	78	99	97	100	111	116	114	132
7. Skins, leather, etc. .	1.1	106	101	97	98	103	104	100	100	99	105	105
8. Clothing, etc. . .	6.8	87	93	89	84	96	97	100	99	102	104	109
9. Food, drink, etc. .	13.2	87	89	89	90	95	98	100	103	104	109	111
10. Sawmills, etc. . .	5.2	79	85	89	79	89	98	100	96	93	102	110
11. Furniture, etc. .	1.7	83	95	89	78	87	97	100	102	113	119	136
12. Paper, stationery, etc.	6.6	71	74	72	64	79	90	100	108	111	124	140
13. Rubber	1.7	66	74	73	58	84	96	100	102	111	118	127
Other (Classes 5, 14, 15)(*d*) . . .	2.6	64	76	72	71	81	93	100	109	111	120	144
Classes 1 to 15 (combined) . .	*96.5*	*71*	*78*	*80*	*76*	*86*	*94*	*100*	*103*	*110*	*117*	*130*
16. Heat, light and power	3.5	62	68	73	76	83	92	100	108	116	123	132
All classes (combined)	**100.0**	**71**	**78**	**79**	**76**	**85**	**94**	**100**	**104**	**110**	**118**	**130**

(*a*) The indexes in this table are combinations of sub-class indexes of value of output as estimated at constant prices. Indexes for all sub-classes within the respective groupings have been combined according to the value-added weights of 1955–56. (*b*) Excludes factories in Northern Territory and Australian Capital Territory. (*c*) Value of production—*see* page 712 and 727. (*d*) Combination of Class 5, Precious metals, jewellery, plate; Class 14, Musical instruments; and Class 15, Miscellaneous products.

INDEXES OF FACTORY PRODUCTION(*a*): AUSTRALIA(*b*), 1959-60 TO 1967-68

(*Base of each index: year* 1959–60 = 100)

Class of industry	*Proportion of total value added(c) 1959–60*	*1959–60*	*1960–61*	*1961–62*	*1962–63*	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
	per cent									
1. Treatment of non-metalliferous mine and quarry products	2.5	100	113	114	122	137	149	153	157	166
2. Bricks, pottery, glass, etc.	2.2	100	101	97	104	116	129	127	135	143
3. Chemicals, dyes, explosives, paints, oils, grease	8.6	100	104	113	123	136	151	158	173	188
4. Industrial metals, machines, conveyances	40.9	100	104	102	116	130	143	149	157	167
6. Textiles and textile goods (not dress)	5.2	100	98	100	111	121	128	130	138	140
7. Skins and leather (not clothing or footwear)	0.9	100	94	95	100	99	102	98	94	97
8. Clothing (except knitted)	5.7	100	103	105	111	116	121	125	132	134
9. Food, drink and tobacco	12.5	100	103	108	113	118	127	133	141	144
10. Sawmills, joinery, boxes, etc.	4.7	100	100	96	100	107	117	119	121	127
11. Furniture of wood, bedding, etc.	1.6	100	97	100	105	112	121	126	132	140
12. Paper, stationery, printing, etc.	7.2	100	107	106	117	129	146	151	158	169
13. Rubber	1.6	100	102	99	115	126	132	132	140	151
Other (classes 5, 14 and 15)(*d*)	2.5	100	102	106	120	139	157	168	199	229
Classes 1 to 15 (combined)	*96.1*	*100*	*103*	*104*	*115*	*126*	*138*	*142*	*151*	*160*
16. Heat, light and power	3.9	100	107	112	127	135	149	158	170	181
All classes (combined)	**100.0**	**100**	**104**	**105**	**115**	**126**	**138**	**143**	**152**	**161**

(*a*) The indexes in this table are combinations of sub-class indexes of value of output as estimated at constant prices. Indexes for all sub-classes within the respective groupings have been combined according to the value-added weights of 1959–60. (*b*) Excludes factories in Northern Territory and Australian Capital Territory. (*c*) Value of production—*see* page 712 and 727. (*d*) Combination of Class 5, Precious metals, jewellery, plate; Class 14, Musical instruments; and Class 15, Miscellaneous products.

Value of land, buildings, plant and machinery

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. Consequently, the totals shown in the table do not represent the actual amount of capital invested in the items specified.

Value of land and buildings

FACTORIES: VALUE OF LAND AND BUILDINGS(*a*), STATES AND TERRITORIES 1963-64 TO 1967-68

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(b)*
1963–64	1,454,527	1,020,794	211,520	230,627	118,813	168,403	n.a.	n.a.	3,204,685
1964–65	1,539,169	1,105,712	237,443	256,536	131,739	209,010	5,668	20,583	3,505,859
1965–66	1,658,597	1,176,942	273,559	276,531	151,047	211,923	6,100	21,891	3,776,590
1966–67	1,785,172	1,254,455	294,662	293,351	170,308	233,983	6,482	22,779	4,061,193
1967–68	1,866,071	1,318,004	315,497	310,019	198,640	263,364	8,150	23,410	4,303,156

(*a*) Depreciated or book values at 30 June, including estimated value of rented premises. (*b*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF LAND AND BUILDINGS(*a*), BY CLASS OF INDUSTRY AUSTRALIA(*b*), 1963-64 TO 1967-68

($'000)

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	72,616	76,489	82,525	86,126	90,486
2. Bricks, pottery, glass, etc.	68,470	73,402	79,323	86,770	89,650
3. Chemicals dyes, explosives, paints, oils, grease	219,212	231,170	247,653	263,840	274,346
4. Industrial metals, machines, conveyances	1,188,289	1,320,522	1,419,339	1,532,902	1,649,345
5. Precious metals, jewellery, plate	11,657	16,597	16,584	17,443	18,254
6. Textiles and textile goods (not dress)	130,425	132,770	137,174	144,923	152,328
7. Skins and leather (not clothing or footwear)	23,322	24,495	25,427	25,478	27,129
8. Clothing (except knitted)	135,959	147,996	156,895	164,304	170,698
9. Food, drink and tobacco	392,089	428,224	465,596	494,778	524,896
10. Sawmills, joinery, boxes, etc., wood turning and carving	90,956	100,165	107,406	115,475	120.701
11. Furniture of wood, bedding, etc.	44,142	49,601	52,594	57,401	63,003
12. Paper. stationery. printing. bookbinding, etc.	198.860	227,332	250,587	265,348	288,746
13. Rubber	50,595	52,322	58,796	64,271	64,101
14. Musical instruments	1,550	1,640	1,730	1,836	3,135
15. Miscellaneous products	64,090	69,571	74,873	85,761	92,875
Total, classes 1 to 15	*2,692,232*	*2.952,295*	*3,176,504*	*3,406,654*	*3,629,694*
16. Heat, light and power	512,453	553,565	600,087	654,539	673,462
Total, all classes	**3,204,685**	**3,505,859**	**3,776,590**	**4,061,193**	**4,303,156**

(*a*) Depreciated or book values at 30 June, including estimated value of rented premises. (*b*) Before 1 July 1964 excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF LAND AND BUILDINGS(*a*), BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry(b)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal. mine, etc. products	31,463	29,637	7,675	10,134	8,283	2,133	443	718	90,486
2. Bricks, etc.	46,359	26,472	5,234	5,639	3,907	1,448	(*c*)	(*c*)	89,650
3. Chemicals, etc.	144,388	84,898	11,555	10,912	18,335	3,871	(*c*)	(*c*)	274,346
4. Industrial metals, etc.	708,693	528,358	113,125	165,471	85,865	37,716	3,715	6,402	1,649,345
5. Jewellery, etc.	6,398	5,168	739	1,506	767	154	..	3,522	18,254
6. Textiles, etc.	47,899	90,487	2,874	4,770	1,493	4,805	..	..	152,328
7. Skins, leather, etc.	13,336	10,163	1,068	1,408	1,097	58	..	..	27,129
8. Clothing, etc.	73,891	72,832	9,534	7,368	4,459	1,779	141	694	170,698
9. Food, drink, etc.	159,930	187,945	81,563	39,166	32,316	20,851	1,544	1,582	524,896
10. Sawmills, etc.	45,195	37,893	11,156	11,084	7,674	6,284	445	970	120,701
11. Furniture, etc.	24,188	21,084	6,825	4,882	4,015	1,531	(*c*)	(*c*)	63,003
12. Paper, stationery, etc.	118,335	101,056	17,773	17,541	10,516	15,218	197	8,111	288,746
13. Rubber	24,291	26,880	5,924	4,234	1,410	796	137	429	64,101
14. Musical instruments	2,323	573	62	85	92	..	..	..	3,135
15. Miscellaneous	39,522	43,190	2,536	4,341	2,798	487	..	..	92,875
Total, classes 1 to 15	*1,486,211*	*1,266,635*	*277,643*	*288,541*	*183,026*	*97,129*	*7,098*	*23,410*	*3,629,694*
16. Heat, light and power	379,859	51,368	37,855	21,478	15,615	166,235	1,052	..	673,462
Total, all classes	**1,866,071**	**1,318,004**	**315,497**	**310.019**	**198,640**	**263,364**	**8,150**	**23,410**	**4,303,156**

(*a*) Depreciated or book values at 30 June 1968, including estimated value of rented premises. (*b*) For full titles *see* table above. (*c*) Not available for publication.

Value of plant and machinery

FACTORIES: VALUE OF PLANT AND MACHINERY(*a*), STATES AND TERRITORIES 1963-64 TO 1967-68

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.(b)*
1963–64	1,504,195	1,040,724	308,307	330,281	155,514	141,651	n.a.	n.a.	3,480,673
1964–65	1,564,408	1,127,948	350,318	388,932	163,526	155,336	6,103	9,682	3,766,253
1965–66	1,672,719	1,209,046	477,459	423,458	197,210	158,672	5,953	10,134	4,154,652
1966–67	1,837,287	1,361,994	601,393	468,959	250,858	169,159	6,825	10,368	4,706,843
1967–68	1,962,069	1,367,251	631,231	503,591	296,659	184,683	6,696	10,023	4,962,203

(*a*) Depreciated or book values at 30 June, including estimated value of rented plant and machinery. (*b*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF PLANT AND MACHINERY(*a*), BY CLASS OF INDUSTRY AUSTRALIA(*b*), 1963-64 TO 1967-68

($'000)

Class of industry	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
1. Treatment of non-metalliferous mine and quarry products	155,387	171,063	197,365	206,403	220,318
2. Bricks, pottery, glass, etc.	70,476	76,841	84,789	90,183	97,623
3. Chemicals, dyes, explosives, paints, oils, grease	459,429	455,567	521,872	610,518	613,373
4. Industrial metals, machines, conveyances	1,187,576	1,311,045	1,418,984	1,617,467	1,774,241
5. Precious metals, jewellery, plate	3,454	7,060	7,197	7,632	7,870
6. Textiles and textile goods (not dress)	106,160	113,469	121,398	125,448	129,706
7. Skins and leather (not clothing or footwear)	9,472	10,206	10,215	10,357	10,880
8. Clothing (except knitted)	46,489	51,361	53,749	57,221	60,400
9. Food, drink and tobacco	383,922	438,152	499,512	534,232	561,607
10. Sawmills, joinery, boxes, etc., wood turning and carving	71,548	75,441	78,321	85,107	85,320
11. Furniture of wood, bedding, etc.	11,137	12,020	12,902	13,450	14,141
12. Paper, stationery, printing, bookbinding, etc.	209,705	231,722	256,681	278,596	300,637
13. Rubber	36,532	41,208	54,194	60,281	59,765
14. Musical instruments	603	581	658	681	1,076
15. Miscellaneous products	46,137	54,444	59,571	64,713	71,713
Total, classes 1 to 15	*2,798,027*	*3,050,180*	*3,377,406*	*3,762,288*	*4,008,671*
16. Heat, light and power	682,646	716,072	777,245	944,555	953,531
Total, all classes	**3,480,673**	**3,766,253**	**4,154,652**	**4,706,843**	**4,962,203**

(*a*) Depreciated or book values at 30 June, including estimated value of rented plant and machinery. (*b*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF PLANT AND MACHINERY(*a*), BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry(b)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal, mine, etc., products	111,216	53,985	16,937	18,195	9.948	8,749	372	916	220,318
2. Bricks, etc.	44,130	30,582	7,347	7,279	5,806	1,316	(*c*)	(*c*)	97,623
3. Chemicals, etc.	282,452	185,775	58,176	33.899	44,721	7,356	(*c*)	(*c*)	613,373
4. Industrial metals, etc.	797,855	377,782	165,587	262,850	110,287	57,898	1,159	823	1,774,241
5. Jewellery, etc.	1,690	1,517	248	485	227	43	..	3,660	7,870
6. Textiles, etc.	41,372	72,178	2,620	4,222	1,729	7,583	..	..	129,706
7. Skins, leather, etc.	4,268	3,816	1,066	1,204	492	34	..	..	10,880
8. Clothing, etc.	22.360	27.504	3,929	3,980	1,694	632	46	255	60,400
9. Food, drink, etc.	132,160	166,705	185,469	32,195	24,556	18,944	881	697	561,607
10. Sawmills, etc.	29,776	18,294	11,925	9,892	8,229	6,848	132	224	85,320
11. Furniture, etc.	5,711	3,765	1,864	1,383	1,007	378	(*c*)	(*c*)	14,141
12. Paper, stationery, etc.	106,312	101,008	21,492	32,028	14,623	22,908	157	2,109	300,637
13. Rubber	21,282	28,551	2,436	5,683	1,286	323	72	131	59,765
14. Musical instruments	796	249	10	13	7	..	..	..	1,076
15. Miscellaneous	25,197	38,746	2,450	3,131	1,830	360	..	..	71,713
Total, classes 1 to 15	*1,626,578*	*1,110,458*	*481,555*	*416,441*	*226,442*	*133,371*	*3,804*	*10,022*	*4,008,671*
16. Heat, light and power	335,491	256,793	149,675	87,150	70,218	51,312	2,892	..	953,531
Total, all classes	**1,962,069**	**1,367,251**	**631,231**	**503,591**	**296,659**	**184,683**	**6,696**	**10,022**	**4,962,203**

(*a*) Depreciated or book values at 30 June 1968, including estimated value of rented plant and machinery. (*b*) For full titles, *see* table on page 732. (*c*) Not available for publication.

Depreciation of land and buildings and plant and machinery

The following table shows, by class of industry, the allowance made for the depreciation of land and buildings and plant and machinery used in connection with the manufacturing industries in each State and Territory as recorded by factory proprietors at the annual census of factory production.

FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, BY CLASS OF INDUSTRY STATES AND TERRITORIES, 1967-68

($'000)

Class of industry (a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1. Treatment non-metal, mine, etc., products	13,026	8,639	2,406	1,898	1,245	509	95	110	27,927
2. Bricks, etc.	4,553	3,402	785	862	658	131	(*c*)	(*c*)	10,491
3. Chemicals, etc.	36,776	32,812	5,900	4,406	6,188	1,331	(*c*)	(*c*)	87,483
4. Industrial metals, etc.	92,629	46,501	12,467	31,805	7,768	3,497	121	82	194,870
5. Jewellery, etc.	180	144	19	55	23	3	..	192	618
6. Textiles, etc.	5,864	11,531	517	804	234	1,038	..	..	19,988
7. Skins, leather, etc.	457	467	97	215	76	3	..	..	1,316
8. Clothing, etc.	2,078	2,548	297	295	159	69	5	25	5,475
9. Food, drink, etc.	16,309	20,675	17,096	3,701	3,560	2,327	78	118	63,864
10. Sawmills, etc.	3,209	1,975	1,265	1,267	1,093	792	9	31	9,640
11. Furniture, etc.	643	402	216	161	112	39	(*c*)	(*c*)	1,575
12. Paper, stationery, etc.	11,882	12,964	2,675	2,818	1,537	3,009	22	260	35,166
13. Rubber	4,152	4,856	479	644	201	57	13	13	10,451
14. Musical instruments	115	17	1	(*b*)	1	..	..	..	135
15. Miscellaneous	3,939	6,203	278	485	194	12	..	..	11,111
Total, classes 1 to 15	*195,812*	*153,136*	*44,498*	*49,416*	*23,048*	*12,817*	*408*	*939*	*480,074*
16. Heat, light and power	28,041	22,383	8,626	5,711	4,940	2,357	490	..	72,548
Total, all classes	**223,853**	**175,519**	**53,124**	**55,127**	**27,988**	**15,175**	**898**	**939**	**552,621**

(*a*) For full titles *see* table on page 732. (*b*) Less than $500. (*c*) Not available for publication.

Land and buildings, plant and machinery—values, additions and replacements, depreciation

The following table summarises the recorded totals for Australia and also includes particulars of additions and replacements.

FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY AUSTRALIA(*a*), 1963-64 TO 1967-68
($'000)

Year	*Book values at 30 June(b)*		*Additions and replacements during year(b)*		*Depreciation allowed during year*	
	Land and buildings	*Plant and machinery*	*Land and buildings*	*Plant and machinery*	*Land and buildings*	*Plant and machinery*
1963–64	3,204,685	3,480,673	192,419	564,958	39,711	336,929
1964–65	3,505,859	3,766,253	249,779	666,490	46,095	366,702
1965–66	3,776,590	4,154,652	272,052	773,322	51,895	407,388
1966–67	4,061,193	4,706,843	284,951	1,030,889	52,440	450,146
1967–68	4,303,156	4,962,203	270,762	760,894	58,412	494,210

(*a*) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory. (*b*) Includes estimated values of rented premises, plant and machinery.

Principal factory products

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau, in the series *Manufacturing Industries*, and in the bulletin *Manufacturing Commodities*, formerly *Secondary Industries, Part II.—Materials Used and Articles Produced in Factories.*

The following table shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list, together with values, where available, is published in the aforementioned bulletin and in the mimeographed statement *Principal Factory Products*. Because of revisions, figures for some items for the year 1967–68 in the following table may differ from corresponding figures in earlier publications.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA(*a*)
1964-65 TO 1967-68

Article		*1964–65*	*1965–66*	*1966–67*	*1967–68*
Acid (in terms of 100%)—					
Hydrochloric	tons	4,491	5,447	6,765	7,918
Nitric	"	24,817	25,522	31,009	35,033
Sulphuric	'000 tons	1,635	1,781	1,991	1,892
Aerated and carbonated waters	'000 gal	99,062	105,381	112,937	126,933
Air-conditioning equipment—					
Room air conditioners (refrigerated)	No.	6,027	18,217	22,217	30,509
Room air coolers (evaporative coolers)	"	2,886	6,000	10,414	18,363
Package unit air conditioners	"	2,306	2,047	3,491	4,654
Asbestos cement building sheets (finished)	'000 sq yd	32,477	32,364	32,609	36,251
Bags, leather, fibre, etc.—					
Handbags—					
Leather	No.	529,133	534,121	501,762	492,736
Plastic	'000	2,392	1,993	1,938	2,294
Other	No.	410,190	393,037	392,798	396,281
Hessian and calico bags	'000 doz	3,095	3,601	3,808	3,973
Suitcases, kitbags and trunks	'000	1,506	1,515	1,551	1,592
All other(*b*)	"	2,187	2,128	2,057	1,988
Bath heaters—					
Electric	No.	14,087	13,524	11,701	11,777
Gas	"	11,348	9,971	9,026	8,648
Solid fuel	"	16,120	13,963	12,446	11,820

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Excludes canvas water bags.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA(*a*), 1964–65 TO 1967–68—*continued*

Article		*1964–65*	*1965–66*	*1966–67*	*1967–68*
Bathing suits	doz	240,090	261,190	301,723	299,825
Baths—					
C.I.P.E.	No.	84,852	85,447	74,489	74,527
Other	,,	67,523	67,068	79,987	87,419
Batteries, wet cell type—					
Auto (S.L.I.) 6 volts	'000	503	470	481	465
,, ,, 12 volts	,,	1,257	1,312	1,488	1,653
Radio, homelighter, fencer	No. of 2 volt cells	158,381	136,173	117,445	106,525
Traction, plant and other	,,	63,717	78,066	99,537	70,518
Beer (excluding waste beer)	'000 gal	274,895	279,503	293,714	309,775
Biscuits	'000 lb	208,945	223,678	230,118	233,383
Blankets	'000	2,079	1,701	1,724	1,654
Boots and shoes (*see* Footwear)					
Bran (wheaten)	tons (2,000 lb)	228,746	206,127	202,183	195,862
Brandy	'000 proof gal	1,400	1,371	791	872
Brassieres	doz	673,551	719,739	792,015	815,130
Bread (2 lb loaf equivalent)	'000	781,317	787,841	802,936	805,679
Breakfast food, cereal (ready to eat)	cwt	878,533	904,040	900,231	935,523
Bricks, clay	mil.	1,353	1,360	1,361	1,440
Briquettes, brown coal	'000 tons	1,893	1,883	1,820	1,745
Butter	'000 lb	454,878	460,433	489,217	432,313
Cardigans, sweaters, etc.	'000 doz	1,418	1,432	1,436	1,378
Cement, Portland	'000 tons	3,746	3,688	3,661	3,805
Cheese (green weight)	'000 lb	138,008	131,300	153,834	155,385
Cigarettes and cigars	,,	49,544	47,543	50,384	51,517
Cloth (including mixtures)—					
Cotton(*b*)	'000 sq yd	56,667	55,701	57,573	59,043
Rayon and acetate	,,	32,016	32,985	35,692	37,226
Synthetic (non-cellulosic)	,,	22,491	20,805	23,530	27,904
Wool	,,	35,300	32,588	30,635	32,599
Coke—					
Metallurgical	'000 tons	3,118	3,179	3,365	3,678
Other	tons	632,501	599,301	551,326	507,253
Concrete, ready mixed	'000 cu yd	6,060	6,736	7,000	7,955
Confectionery—					
Chocolate	'000 lb	95,634	104,312	104,934	98,984
Other	,,	106,274	107,856	111,796	112,848
Copper, refined(*c*)	tons	53,441	91,588	74,313	71,952
Coppers (wash boilers)—					
Electric	No.	11,051	9,113	8,011	9,462
Gas	,,	7,503	5,740	4,949	6,464
Inserts	,,	18,213	19,074	9,047	(*e*)
Cordials and syrups	'000 gal	7,295	9,144	9,160	9,776
Corsets and corselets	doz	342,336	380,835	393,231	418,145
Cycles (complete)	No.	67,874	63,641	69,365	90,671
Dentifrices (toothpaste)	'000 lb	9,799	9,774	10,773	10,324
Electric generators—					
Non-automatic—Alternating current	No.	1,480	1,676	1,763	2.111
Direct current	,,	1,139	1,022	708	632
Electricity	mil. kWh	35,641	38,279	41,484	44,531
Electrodes for manual welding	'000 lb	47,654	43,555	45,656	45,124
Engines, internal combustion(*d*)	'000	306	245	288	258
Essences, flavouring—					
Domestic	gal	130,532	134,011	100,460	90,861
Industrial	,,	587,753	599,426	733,289	840,894
Face powder	lb	310,586	285,870	376,236	298,233
Fans, electric	No.	204,285	223,409	321,600	360,346
Fish, canned (including fish loaf)	'000 lb	10,910	11,849	13,713	17,403

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Excludes tyre-cord fabric. (*c*) Primary origin only. (*d*) Petrol and diesel. Excludes car, motor cycle, truck, tractor, aero, and marine engines. (*e*) Not available for publication.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA(*a*), 1964–65 TO 1967–68—*continued*

Article		*1964–65*	*1965–66*	*1966–67*	*1967–68*
Floorboards—					
Australian timber	'000 super ft	160,165	162,710	154,286	151,812
Imported timber	,,	798	721	324	463
Floor coverings—					
Textile	'000 sq yd	11,542	11,692	12,624	12,758
Smooth surface	,,	11,869	14,041	12,150	14,524
Underfelts, underlays, etc.	,,	11,158	11,067	(*h*)14,802	(*h*)16,613
Floor polishers, electric	No.	105,077	89,193	88,840	72,657
Flour—					
Self-raising	'000 cwt	902	864	832	804
Wheaten(*b*)	'000 tons (2,000 lb)	1,553	1,414	1,392	1,419
Footwear (not rubber)—					
Boots, shoes and sandals	'000 pairs	35,306	34,949	37,080	38,076
Slippers	,,	5,512	4,609	4,454	4,298
Fruit juices, natural—					
Single strength	'000 gal	10,106	10,727	13,674	14,630
Concentrated(*c*)	,,	753	815	1,139	971
Gas (town)	mil. cubic ft	55,260	55,742	56,743	58,070
Gloves—					
Dress	doz pairs	28,299	26,163	27,761	30,913
Work—					
Sewn(*d*)	'000 doz pairs	407	382	358	371
Dipped	,,	1,195	1,309	1,343	1,539
Glucose	'000 lb	57,444	60,779	65,422	61,945
Golf clubs	doz	28,635	33,145	40,680	38,082
Handkerchiefs—					
Men's	'000 doz	2,089	1,901	1,664	1,971
Women's	,,	1,603	1,507	1,371	1,205
Heaters, room—					
Solid fuel	No.	47,883	37,967	31,606	24,558
Radiators and electric fires	,,	749,889	706,943	600,294	623,950
Gas fires and space heaters, domestic	,,	30,858	31,185	38,764	38,268
Ice	tons	205,545	198,701	190,274	187,306
Ice cream	'000 gal	25,019	30,026	34,974	37,423
Infants' and invalids' milk-based health beverages(*e*)	'000 lb	45,179	45,280	49,348	48,234
Ink, printing—					
News	,,	14,948	14,900	16,190	17,401
Other	,,	13,545	13,971	14,782	15,440
Iron and steel—					
Pig iron	'000 tons	3,936	4,380	4,893	5,209
Steel ingots, open hearth and electric	,,	5,131	5,561	6,114	6,287
Blooms and slabs	,,	4,503	4,823	4,978	5,372
Irons, electric (hand, domestic)	No.	430,326	450,230	507,882	465,501
Jams (including conserves, jellies, etc.)	'000 lb	89,362	97,149	90,761	83,917
Lard	,,	5,356	5,853	6,670	6,475
Lawn mowers—					
Petrol, rotary	No.	201,125	176,396	219,826	184,908
Other types(*f*)	,,	10,799	11,403	11,235	11,688
Lead refined(*g*)	tons	199,032	188,197	192,429	186,908
Leather—					
Dressed or finished—					
Chrome tanned (including retanned)	'000 sq ft	85,900	83,175	71,953	72,214
Vegetable tanned, by weight	'000 lb	19,865	15,326	12,883	11,296
Vegetable tanned, by measurement	'000 sq ft	4,036	3,956	4,009	3,303
Tanned or dressed skins with hair or wool retained	doz	88,592	117,778	82,018	110,381

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Includes wheatmeal for baking and sharps and atta flour. (*c*) Excludes grape must. (*d*) Excludes fabric liners for dipped gloves but includes moulded or heat sealed work gloves. (*e*) Includes malted milk and milk sugar (lactose). (*f*) Petrol cylinder, electric and hand. (*g*) Includes lead content of lead only from primary sources, but excludes lead-silver bullion produced for export. (*h*) New basis—Needled (or bonded) felts of jute or jute/hair mixtures (for all purposes) as from July 1966.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA(*a*), 1964–65 TO 1967–68—*continued*

Article		*1964–65*	*1965–66*	*1966–67*	*1967–68*
Lime—					
Crushed	tons	200,040	219,912	249,807	253,755
Hydrated	,,	89,840	96,566	97,544	95,539
Quick	,,	133,957	143,311	155,173	179,536
Lipstick	lb	65,458	70,104	74,842	72,323
Malt (excluding extract)	'000 bus	12,328	13,444	14,239	13,776
Margarine—					
Table	'000 lb	50,937	53,698	48,356	35,576
Other	,,	69,060	67,884	76,138	89,285
Mattresses and bed bases—					
Box spring	No.	64,699	80,319	100,362	118,883
Inner spring	,,	727,248	705,702	682,587	659.452
Woven wire, link mesh and spring	,,	510,492	557,344	638,726	626,534
Other	,,	294,074	273,040	302,882	304,533
Meat, canned(*b*)	'000 lb	115,578	114,098	100,849	106,957
Meters—					
Electric (domestic)(*c*)	No.	302,532	302 511	296,571	304,905
Gas	,,	50,010	41,443	37,884	37,831
Water	,,	127,316	141,042	146,915	148,839
Milk, condensed, concentrated and evaporated—					
Full cream, sweetened	'000 lb	102,479	73,985	61,510	47,316
Full cream, unsweetened	,,	89,390	88,482	91,700	87,946
Skim	,,	21,936	21,196	24,974	18,932
Milk powder—					
Full cream	,,	43,669	45,060	48,018	47,272
Skim	,,	107,823	112,342	188,584	196,029
Buttermilk or mixed skim and buttermilk	,,	20,885	25,900	32,518	33,592
Motors, electric	'000	2,585	2,510	2,667	2,911
Motor vehicles, finished—					
Cars	No.	250,477	235,326	238,720	270,963
Station wagons	,,	83,992	58,334	57.534	59,047
Utilities	,,	25,661	33,038	33,909	31,174
Panel vans	,,	12,972	14,427	14,013	14,687
Truck and truck-type vehicles	,,	1,220	766	768	1,137
Motor vehicles, partly finished—					
Cars, station wagons, utilities, vans	,,	1,825	1,666	1,381	1,663
Trucks and truck-type vehicles	,,	27,029	20,851	21,747	21,857
Motor vehicle safety belts	,,	437,189	426,847	835,162	962,851
Nails	tons	26,802	23,414	23,830	22,925
Neckties	doz	494,107	496,989	490,677	498,503
Oatmeal and rolled oats—					
For porridge, etc.	cwt	319,950	313,987	340,781	314,319
Other	,,	536,211	397,401	308,712	116,034
Oils, vegetable, crude	'000 lb	87,676	87,903	84,519	95,033
Paints, etc.—					
Paints (not water) and enamels ready for use	'000 gal	16,260	15,188	16,037	16,473
in paste form	'000 lb	2,926	3,158	2,589	2,238
Lacquers (nitro-cellulose)	'000 gal	1,563	1,437	1,427	1,427
Tinting colours, packaged ready for sale	,,	57	54	57	68
Stains and clear varnishes packaged ready for sale	,,	899	845	913	875
Water paints—					
Emulsion type	,,	3,710	4,321	4,193	4,357
In powder form	'000 lb	1,053	943	870	745
Thinners	'000 gal	4,163	4,018	4,031	4,231
Paper—					
Newsprint	tons	93,142	93,211	97,255	92,648
Other	,,	341,642	351,303	389,223	385,567

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Excludes poultry and baby food. (*c*) New basis—electricity consumption meters from 1 July 1965.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA(*a*), 1964–65 TO 1967–68—*continued*

Article		*1964–65*	*1965–66*	*1966–67*	*1967–68*
Paperboard	tons	296,387	317,553	329,496	334,660
Perambulators, pushers and strollers	No.	135,621	132,499	133,018	139,082
Petrol—					
For blending and refining	million gal	52	45	1,832	50
Other (all types)	,,	1,495	1,609		1,911
Plaster of paris	tons	277,445	265,553	261,054	278,225
Plaster sheets	'000 sq yd	29,937	29,917	30,601	32,809
Plywood, 3/16 inch basis	'000 sq ft	217,059	187,258	200,451	230,018
Pollard	tons (2,000 lb)	326,418	303,162	284,628	305,468
Preserves—					
Fruit—					
Canned or bottled	'000 lb	513,713	579,619	611,552	659,700
Pulp and puree—single strength	'000 cwt	86	62	51	44
Vegetables—					
Canned or bottled	'000 lb	152,117	180,098	194,834	182,051
Quick frozen	,,	77,254	93,885	118,216	100,862
Pyjamas—					
Men's and boys' (suits only)	doz	430,589	480,396	422,640	420,563
Women's and girls' (incl. nightdresses)	,,	711,139	627,711	722,519	746,779
Racquet frames (all types)	,,	16,190	15,308	16,866	15,798
Radio receiving sets (including radiograms)	No.	455,970	392,526	445,766	522,394
Records (phonograph)—					
Single play (78 and 45 rpm)	'000	4,198	4,295	4,727	5,296
Extended play	,,	1,474	1,486	2,103	1,869
Long play	,,	4,459	5,086	6,714	6,847
Refrigerators, domestic	No.	227,728	213,870	232,200	245,138
Resins, plastic and synthetic, for all purposes	'000 cwt	2,123	2,434	2,854	3,349
Rice, polished, unpolished and broken	,,	1,969	2,080	2,373	(*b*)
Ropes and cables (excluding wire)	cwt	140,770	133,355	130,845	117,670
Rugs	'000	201	175	191	170
Sauce	'000 pints	38,271	46,111	42,213	43,692
Semolina	tons (2,000 lb)	16,532	18,744	20,777	24,287
Shirts (men's and boys')	'000 doz	2,146	2,226	2,214	2,226
Sink heaters, electric	No.	12,155	10,646	10,174	9,941
Sinks, steel	,,	219,370	219,333	226,076	212,752
Soap, for personal toilet use	'000 cwt	465	478	483	500
Socks and stockings—					
Men's and youths'	'000 doz pairs	1,707	1,690	1,815	1,910
Women's and maids'	,,	4,440	4,563	4,971	5,257
Children's and infants'	,,	1,025	903	1,045	1,004
Soup—					
Canned	'000 pints	63,077	72,032	78,985	67,201
Dry-mix	'000 lb	7,291	8,226	8,803	9,127
Starch	,,	147,184	161,555	165,563	183,800
Stearine (stearic acid)	,,	11,538	9,647	10,722	11,780
Steel, constructional, fabricated	tons	509,121	542,267	567,342	584,791
Stoves, ovens and ranges, domestic cooking—					
Electric(*c*)	No.	180,541	188,132	192,655	193,627
Gas(*d*)	,,	84,503	71,265	75,482	73,127
Solid fuel	,,	23,612	20,859	18,785	14,921
Sugar—					
Raw (94 net titre)	'000 tons	1,950	1,953	2,343	2,334
Refined	,,	592	609	613	614
Sulphate of ammonia	tons	108,275	118,387	110,246	87,007
Superphosphate	'000 tons	(*e*)3703	(*f*)4,265	(*f*)4,430	(*f*)3,935
Talcum powder	'000 lb	7,835	6,870	8,134	8,975

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Not available for publication. (*c*) Includes wall ovens but excludes cooking tops and portable units. (*d*) Upright and elevated (with oven) including wall ovens, but excluding hotplates, stovettes, etc. (*e*) Source: Department of Primary Industry, Figures from June 1964 to June 1965 include double and triple superphosphate and ammonium phosphate expressed in terms of single phosphate, i.e. 22% P_2O_5 equivalent. (*f*) From 1 July 1965 excludes ammonium phosphate.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES AUSTRALIA(*a*), 1964–65 TO 1967–68—*continued*

Article		*1964–65*	*1965–66*	*1966–67*	*1967–68*
Tallow (including dripping), rendering—					
Edible	'000 lb	161,967	148,628	150,789	148,099
Inedible	,,	391,152	345,104	361,588	353,901
Television sets	No.	308,737	276,586	254,811	253,247
Television picture tubes	,,	400,675	361,534	368,517	342,159
Tiles, roofing—					
Cement	'000	87,744	82,921	88,509	96,831
Terracotta	,,	52,984	51,258	47,101	46,972
Timber—					
From native logs—					
Hardwood, etc.	'000 super ft	1,203,705	1,185,831	1,151,369	1,173,931
Softwood	,,	329,509	329,532	317,591	307,683
From imported logs	,,	36,346	27,892	25,771	32,379
Toasters, electric (domestic)	No.	321,042	329,626	366,972	331,717
Tobacco	'000 lb	8,993	8,407	7,595	7,463
Tomato juice	'000 gal	987	1,927	2,627	2,463
,, paste and puree	'000 pints	16,373	22,428	22,776	11,546
,, pulp	'000 cwt	168	133	181	193
Towels	'000 doz	895	960	992	892
Toilet cisterns	No.	359,944	340,895	352,791	370,346
Transformers, chokes and ballasts, for distribution of power and light, etc.	,,	22,308	19,361	16,823	15,892
Tubes, pneumatic(*b*)	'000	3,651	3,823	4,051	4,351
Twine (all types)	cwt	195,461	174,646	248,825	185,966
Tyres, pneumatic(*b*)	'000	5,530	5,613	5,806	6,762
Umbrellas, street and general purpose	No.	764,510	716,987	825,032	930,266
Underwear (men's, women's, children's)	'000 doz	6,231	6,305	6,179	6,612
Vacuum cleaners (domestic)	No.	181,326	181,691	156,307	163,613
Wash basins—					
C.I.P.E.	,,	71,430	64,126	58,040	52,919
Earthenware	,,	149,257	140,652	146,546	159,480
Pressed steel	,,	56,126	62,852	78,893	91,796
Washing machines, household, electric	,,	264,001	240,189	231,601	278,348
Weatherboards—					
Australian timber	'000 super ft	20,599	20,307	19,025	18,799
Imported timber	,,	3,094	2,583	1,857	2,175
Wheatmeal for stock feed	tons (2,000 lb)	207,696	284,474	228,872	283,589
Wheelbarrows (metal)	No.	111,366	116,838	123,291	118,797
Wine, beverage—					
Fortified	'000 gal	11,137	9,678	12,401	11,534
Unfortified	,,	8,697	8,663	12,020	14,562
Wood pulp	tons	317,435	330,625	357,665	351,268
Wool, scoured or carbonised	'000 lb	158,832	156,113	154,119	157,860
Wool tops, pure	,,	45,835	45,798	44,535	42,439
Yarn (including mixtures)—					
Cotton	,,	59,092	59,021	60,792	60,849
Woollen	,,	30,647	30,534	32,641	34,596
Wool worsted	,,	23,532	21,519	18,781	18,896
Rayon and acetate, spun	,,	6,218	5,970	6,771	9,213
Synthetic (non-cellulosic) fibres spun	,,	6,387	6,720	8,843	9,542
Zinc, refined(*c*)	tons	189,395	196,534	197,030	187,565

(*a*) Excludes Northern Territory and Australian Capital Territory. (*b*) Excludes bicycle and 'other'. (*c*) Primary origin only—includes small quantities of zinc dust.

Overseas participation in Australian manufacturing industry

Introduction

Any attempt to provide statistical information on the extent of overseas participation in local industry involves difficult problems of statistical concept and measurement. Broadly, there are two ways in which overseas participation may be measured. One is to examine the financial accounts of Australian companies and compare the value of *assets* of companies in which there is significant overseas investment with those of other Australian companies. The other is to examine the *operations* (as expressed in terms of production, wages and salaries, output, etc.) of establishments of Australian companies in which there is significant overseas investment and compare their operations with those of establishments of other Australian companies. The second method has been adopted for a series of studies in overseas participation in Australian manufacturing industry.

Scope of the statistics

The statistics relate to Australian manufacturing industry and are derived from data collected from the Annual Factory Census. For the purpose of the census a 'factory' is defined as an establishment in which four or more persons are employed or where power (other than manual) is used in any manufacturing process.

Classification of companies

The extent of overseas participation in the manufacturing industry is measured by the operations of the establishments of companies in which there is direct investment from overseas (as determined by the annual survey of overseas investments). These are defined as follows.

(i) Companies in Australia in which at least 50 per cent of the ordinary shares (or voting stock) is held by individual shareholders or companies resident in one overseas country, or where 25 per cent or more of the ordinary shares (or voting stock) is held by one company, or a group of companies, incorporated in one overseas country.

(ii) Branches of companies incorporated overseas and registered in Australia as foreign companies.

(iii) Wholly and partly owned subsidiaries and sub-subsidiaries, etc., of companies included in (i) and (ii) above.

Investment in ordinary shares (or voting stock) of Australian companies (including companies in which there is direct investment from overseas) where the proportion of shares held in a single country falls below the percentages specified in (i) above is defined as portfolio investment. Because of the difficulties encountered in determining the proportion of ordinary shares (or voting stock) of individual Australian companies held by portfolio investors overseas, *the figures for overseas participation in the manufacturing industry exclude participation by way of portfolio investment.*

Further information available

In the following tables the degree of overseas participation is expressed in terms of value of production only. Further details in terms of value of salaries and wages, and average number of persons employed, as well as the value of production, may be found in Parts I and II of the mimeographed bulletin *Overseas Participation in Australian Manufacturing Industry* 1962–63 *and* 1966–67.

OVERSEAS OWNERSHIP AND CONTROL

In analysing the extent of overseas participation in local industry it is usual to distinguish between two aspects, overseas ownership and overseas control.

Overseas ownership

Statistics which give a general indication of the degree of overseas ownership in terms of the value of production of Australian manufacturing establishments are presented in the two following tables. In the compilation of these statistics the data for an establishment of a company in which there is no direct investment from overseas are allocated wholly to Australian ownership. The data relating to an establishment of a company in which there is direct investment from overseas are *apportioned* to overseas and Australian ownership according to the proportion of the ordinary shares (or voting stock) of the company that is held by the direct overseas investors.

MANUFACTURING: VALUE OF PRODUCTION APPORTIONED TO AUSTRALIAN AND DIRECT OVERSEAS OWNERSHIP, BY INDUSTRY, 1962-63 AND 1966-67

Industry and ownership	*Value ($'000)*		*Proportion Australian and overseas (per cent)*	
	1962–63	*1966–67*	*1962–63*	*1966–67*
Treatment of non-metalliferous mine and quarry products—				
Australian(*a*)	120,015	169,108	92.4	90.6
Overseas	9,941	17,552	7.6	9.4
Bricks, pottery, glass, etc —				
Australian(*a*)	91,228	130,971	91.1	89.5
Overseas	8,272	15,401	8.9	10.5
Chemicals, dyes, explosives, paints, oils, grease—				
Australian(*a*)	157,972	221,640	38.4	35.3
Overseas	253,403	406,007	61.6	64.7
Industrial metals, machines, conveyances—				
Australian(*a*)	1,531,996	2,216,312	78.4	76.1
Overseas	422,707	696,573	21.6	23.9
Textile and textile goods (not dress)—				
Australian(*a*)	206,948	262,120	88.5	86.5
Overseas	26,837	40,937	11.5	13.5
Skins and leather (not clothing or footwear)—				
Australian(*a*)	38,432	42,161	95.5	95.6
Overseas	1,828	1,932	4.5	4.4
Clothing (except knitted)—				
Australian(*a*)	255,406	327,200	95.9	95.8
Overseas	10,931	14,302	4.1	4.2
Food, drink and tobacco—				
Australian(*a*)	510,609	686,974	80.2	77.0
Overseas	126,308	205,284	19.8	23.0
Sawmills, joinery, boxes, etc , wood turning and carving—				
Australian(*a*)	182,861	244,473	96.1	95.3
Overseas	7,496	12,078	3.9	4.7
Furniture of wood, bedding, etc —				
Australian(*a*)	69,262	96,734	99.0	97.1
Overseas	726	2,937	1.0	2.9
Paper, stationery, printing, book-binding, etc —				
Australian(*a*)	317,968	449,253	90.6	89.3
Overseas	32,945	54,062	9.4	10.7
Rubber—				
Australian(*a*)	67,316	77,264	85.9	77.7
Overseas	11,006	22,205	14.1	22.3
Other(*b*)—				
Australian(*a*)	307,368	426,194	92.5	91.9
Overseas	24,861	37,328	7.5	8.1
Total manufacturing—				
Australian(*a*)	**3,857,381**	**5,350,403**	**80.4**	**77.8**
Overseas	**937,860**	**1,526,599**	**19.6**	**22.2**
Grand total	**4,795,241**	**6,877,001**	**100.0**	**100.0**

(*a*) Includes ownership by overseas portfolio investors. (*b*) Includes musical instruments, heat, light and power, and miscellaneous products.

Overseas control

The statistics in the following tables provide an indication of the relative importance of manufacturing establishments of companies in which there is direct overseas investment. The concept of direct overseas investment is directly related to the concept of overseas control, and the statistics in these tables provide a measure of the value of production of manufacturing establishments of companies which can be regarded as subject to a degree of overseas control. The statistics have been derived by allocating data relating to each manufacturing establishment *wholly* to either one or the other of the following categories: (i) establishments of direct overseas investment companies; (ii) other establishments.

MANUFACTURING: VALUE OF PRODUCTION ATTRIBUTED TO AUSTRALIAN AND DIRECT OVERSEAS CONTROL, BY INDUSTRY, 1962-63 AND 1966-67

Industry and category of control	*Value ($'000)*		*Proportion Australian and overseas (per cent)*	
	1962–63	*1966–67*	*1962–63*	*1966–67*
Treatment of non-metalliferous mine and quarry products—				
Australian	118,762	165,200	91.4	88.5
Overseas	11,194	21,460	8.6	11.5
Bricks, pottery, glass etc.—				
Australian	90,414	131,557	90.3	89.9
Overseas	9,686	14,815	9.7	10.1
Chemicals, dyes, explosives, paints, oils, grease—				
Australian	132,409	169,599	32.2	27.0
Overseas	278,966	458,048	67.8	73.0
Industrial metals, machines, conveyances—				
Australian	1,468,819	2,077,181	75.1	71.3
Overseas	485,884	835,704	24.9	28.7
Textiles and textile goods (not dress)—				
Australian	203,805	255,994	87.2	84.5
Overseas	29,980	47,063	12.8	15.5
Skins and leather (not clothing or footwear)—				
Australian	38,264	42,009	95.0	95.3
Overseas	1,996	2,084	5.0	4.7
Clothing (except knitted)—				
Australian	251,049	320,760	94.3	93.9
Overseas	15,288	20,742	5.7	6.1
Food, drink and tobacco—				
Australian	484,635	636,959	76.1	71.4
Overseas	152,282	255,299	23.9	28.6
Sawmills, joinery, boxes, etc, wood turning and carving—				
Australian	182,413	242,801	95.8	94.6
Overseas	7,944	13,750	4.2	5.4
Furniture of wood, bedding, etc.—				
Australian	69,154	95,021	98.8	95.3
Overseas	834	4,650	1.2	4.7
Paper, stationery, printing, book-binding, etc.—				
Australian	309,717	433,923	88.3	86.2
Overseas	41,196	69,392	11.7	13.8
Rubber—				
Australian	66,274	76,510	84.6	76.9
Overseas	12,048	22,959	15.4	23.1
Other(*a*)				
Australian	303,087	419,983	91.2	90.6
Overseas	29,142	43,539	8.8	9.4
Total manufacturing—				
Australian	**3,718,801**	**5,067,497**	**77.6**	**73.7**
Overseas	**1,076,440**	**1,809,504**	**22.4**	**26.3**
Grant total	**4,795,241**	**6,877,001**	**100.0**	**100.0**

(*a*) Includes musical instruments, heat, light and power, and miscellaneous products.

MANUFACTURING: VALUE OF PRODUCTION APPORTIONED TO DIRECT OVERSEAS AND AUSTRALIAN OWNERSHIP, 1962-63 AND 1966-67, BY PERCENTAGE OF DIRECT OVERSEAS EQUITY

	Value ($'000)		*Proportion (per cent)*	
Proportion of direct overseas equity(a)	*1962–63*	*1966–67*	*1962–63*	*1966–67*
25 per cent but less than 50 per cent	47,432	80,187	1.0	1.2
50 per cent but less than 75 per cent	115,451	233,256	2.4	3.4
75 per cent and over	774,977	1,213,156	16.2	17.6
Total apportioned to direct overseas ownership	**937,860**	**1,526,599**	**19.6**	**22.2**
Total apportioned to Australian ownership(*b*)	**3,857,381**	**5,350,403**	**80.4**	**77.8**
Grand total	**4,795,241**	**6,877,001**	**100.0**	**100.0**

(*a*) Percentage of direct equity for all overseas countries. (*b*) Includes ownership by overseas portfolio investors.

For a discussion of some of the problems associated with the measurement of overseas control reference should be made to *Overseas Participation in Australian Mining Industry* in the chapter Mineral Industry.

MANUFACTURING: VALUE OF PRODUCTION ATTRIBUTED TO DIRECT OVERSEAS AND AUSTRALIAN CONTROL 1962-63 AND 1966-67, BY PERCENTAGE OF DIRECT OVERSEAS EQUITY

	Value ($'000)		*Proportion (per cent)*	
Proportion of direct overseas equity(a)	*1962–63*	*1966–67*	*1962–63*	*1966–67*
25 per cent but less than 50 per cent	84,438	152,655	1.7	2.2
50 per cent but less than 75 per cent	200,950	406,327	4.2	5.9
75 per cent and over	791,052	1,250,522	16.5	18.2
Total apportioned to overseas control	**1,076,440**	**1,809,504**	**22.4**	**26.3**
Total apportioned to Australian control	**3,718,801**	**5,067,497**	**77.6**	**73.7**
Grand total	**4,795,241**	**6,877,001**	**100.0**	**100.0**

(*a*) Percentage of direct equity for all overseas countries.

CHAPTER 23

RURAL INDUSTRY

This chapter is divided into four major parts:

Introduction, dealing with the disposal of Crown lands, closer settlement and war service settlement and general rural activity in Australia;
Agricultural production;
Pastoral production; and
Other rural industries, which includes the dairying, poultry and bee industries.

For greater detail on the subjects dealt with in this chapter *see* the annual bulletins *Rural Industries*, *Value of Production*, and *Manufacturing Commodities* (regarding butter, cheese, etc., factories) issued by this Bureau. Current information on commodities produced is obtainable in the *Quarterly Summary of Australian Statistics*, *Monthly Review of Business Statistics*, *Monthly Bulletin of Production Statistics*, and *Digest of Current Economic Statistics* (monthly). The series of bulletins *Classification of Rural Holdings by Size and Type of Activity* (*see* page 749) shows particulars of rural holdings classified by size, nature and area of crops, and numbers of livestock, and also according to main type of activity. The mimeographed annual *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia* contains details of the production and utilisation of food stuffs. The following mimeographed publications also contain considerable detail on the particular subjects dealt with.

General. *Value of Production and Indexes of Price and Quantum of Farm Production* (annual), *Value of Primary Production* (*Preliminary Statement*) (annual), *Value of Primary Production* (*Preliminary Estimates*) (annual), *Farm Machinery on Rural Holdings* (annual), *Tractors on Rural Holdings, 31 March 1969* (detailed information, triennial), *Grain and Seed Harvesters on Rural Holdings, 31 March 1967* (detailed information, triennial), *New Tractors: Receipts, Sales and Stocks* (quarterly), and *New Agricultural Machinery* (quarterly).

Agricultural production. *Rural Land Use and Crop Production* (annual), *Agricultural Statistics* (*Preliminary Statement*) (annual), *The Wheat Industry* (two a year), *The Fruit Growing Industry* (annual), and *Fruit Statistics* (*Preliminary Statement*) (annual).

Pastoral production. *Livestock Statistics* (annual), *Livestock Numbers* (annual), *The Meat Industry* (monthly), *Wool Production* (annual), and *Wool Production and Utilisation* (annual).

Other rural production. *The Dairying Industry* (monthly and half yearly), *Livestock Statistics* (annual), *Livestock Numbers* (annual), *Chicken Hatchings and Poultry Slaughterings* (monthly), *Manufacturing Industries No. 20—Bacon Curing* and *No. 21—Butter, Cheese and Condensed, Concentrated, etc., Milk* (annual), *Production Summaries No. 36—Preserved Milk Products* and *No. 55—Butter and Cheese* (monthly), and *Bee farming* (annual).

Detailed particulars of the early development of various aspects of Australian rural industry are given in previous issues of the Year Book up to No. 53 (*see*, for example No. 53, pages 885, 888, 891–2).

Throughout this chapter yearly periods for area and production of crops relate to years ended 31 March. Other periods in respect of e.g. factory and trade statistics relate to years ended 30 June.

INTRODUCTION

Disposal of Crown lands

Land legislation and tenures

The following sections contain figures showing the extent of the different land tenures in the several States and Territories, classified under broad headings indicating the nature of the tenure, together with some general descriptive matter. Information in greater detail, descriptions of the land tenure systems of the several States and the internal Territories, and conspectuses of land legislation in force and of the systems of land tenure were provided in Year Book No. 48 and previous issues (*see also* Year Book No. 50, page 85 and List of Special Articles, etc. preceding General Index to this Volume).

Free grants and reservations

Provision exists in all States except Tasmania for the disposal of Crown lands for public purposes by free grants, and in all States for the temporary and or permanent reservation of Crown lands for public purposes. In the Northern Territory any Crown lands not subject to any right of, or contract for, purchase may be resumed for public purposes, and the whole or any portion of the lands resumed may be reserved for that purpose. In the Australian Capital Territory, under the *Seat of Government (Administration) Act* 1910, Crown lands may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act.

AREAS OF CROWN LANDS RESERVED: STATES AND TERRITORIES, 1965 TO 1969

('000 acres)

Year	*N.S.W.(a)*	*Vic.(b)*	*Qld(b)*	*S.A.(a)*	*W.A.(a)*	*Tas.(a)*	*N.T.(a)*	*Total(c)*
1965	15,943	8,861	25,451	22,802	78,088	4,861	60,903	216,909
1966	15,937	8,874	25,662	22,878	78,226	4,913	60,921	217,411
1967	15,875	8,921	27,240	22,878	80,491	4,938	60,974	221,317
1968	15,872	8,952	27,833	22,919	80,658	5,327	60,988	222,549
1969	15,849		28,209	22,919	80,772	6,546	61,124	

(*a*) At 30 June. (*b*) At 31 December. (*c*) Excludes the Australian Capital Territory.

The purposes for which areas were reserved are given hereunder for the latest years available as set out in the table above.

New South Wales. For travelling stock, 4,926,738 acres; forest reserves, 1,518,842 acres; water and camping reserves, 761,074 acres; mining reserves, 1,007,102 acres; recreation and parks, 733,872 acres; other reserves, 6,901,640 acres; total, 15,849,268 acres.

Victoria. For roads, 1,707,565 acres; water reserves, 315,494 acres; forest and timber reserves, 5,818,285 acres; mallee reserves, 410,000 acres; other reserves, 701,121 acres; total 8,952,465 acres.

Queensland. For timber reserves, 1,750,537 acres; State forests and national parks, 9,824,854 acres; Aboriginal reserves, 6,978,466 acres; streets, surveyed roads and stock routes, 4,267,588 acres; general reserves, 5,387,826 acres; total, 28,209,271 acres.

South Australia. Total area of surveyed roads, railways and other reserves, 22,918,983 acres, including 18,842,822 acres set apart as Aboriginal reserves.

Western Australia. For State forests, 4,456,326 acres; timber reserves, 1,865,876 acres; other reserves 74,449,558 acres; total, 80,771,760 acres.

Tasmania. For forest reserves, 5,523,000 acres; national parks, 1,023,000 acres; total, 6,546,000 acres.

Northern Territory. For Aboriginal, defence and public requirements, 61,124,000 acres.

Conditional and unconditional purchases of freehold

Crown lands in the States may be disposed of by unconditional purchase at public auction or by certain other forms of purchase (for details *see* Year Book No. 48, pages 91–2). Conditional purchases of various types may also be made. In the Northern Territory only 0.1 per cent of the total area is alienated, the remainder being held under lease or licence, or reserved for various purposes or unoccupied. In the Australian Capital Territory about 16 per cent of the area is alienated or in process of alienation in consequence of contracts existing prior to the establishment of the Territory.

Leases and licences

Well over half the area of the States of New South Wales and South Australia and of the Northern Territory and more than four-fifths of that of Queensland are occupied under some form of lease or licence. In Victoria, only about one-tenth of the area is leased or licensed, more than half being alienated; in Western Australia, more than one-third is leased or licensed, most of the remainder being unoccupied; in Tasmania about one-third is leased or licensed, while about one-quarter of the area of the State is occupied by the Crown or unoccupied, and the remainder alienated. Areas leased or licensed in the States are held under Crown lands Acts, closer settlement Acts, mining Acts, etc., and in the Territories under various Ordinances.

Land Acts and Ordinances. The types of lease and licence which obtain under land legislation cover a wide range, and vary with each State or Territory. The following are examples: grazing or pastoral, settlement and closer settlement, settlement purchase, conditional and unconditional purchase, perpetual and Crown; however, the variations of these forms and the special forms of lease and licence which exist would extend this list considerably. Details of the various types in existence are given in Year Book No. 48, pages 93–4, and some detail is included in the tables on pages 878–81 of Year Book No. 53.

AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING AND FORESTRY: STATES AND TERRITORIES, 1965 TO 1969

('000 acres)

Year	*N.S.W.(a)*	*Vic.(b)*	*Qld(b)*	*S.A.(a)*	*W.A.(a)*	*Tas. (a)*	*N.T. (a)(c)*	*A.C.T. (a)(c)*	*Total*
1965 . .	111,567	6,263	365,318	147,661	241,911	984	191,840	282	1,065,826
1966 . .	111,262	6,269	362,866	150,422	241,662	933	190,688	279	1,064,381
1967 . .	111,300	5,993	359,152	149,192	244,715	915	194,543	262	1,066,072
1968 . .	110,499	(*d*)5,856	353,163	149,530	244,804	766	191,595	254	1,056,467
1969 . .	112,133		346,946	149,327	245,240	767	192,966	251	

(*a*) Year ended 30 June. (*b*) Year ended 31 December. (*c*) Leases and licences for all purposes. (*d*) Includes 75,000 acres of reserved Crown lands held under grazing licences.

Closer settlement and war service settlement

Closer settlement

Particulars of the methods of acquisition and disposal of land for the closer settlement of civilians and returned service personnel (1914–18 War) in the several States are given in issues of the Year Book up to No. 22 (*see* No. 22, pages 163–9), and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. However, the amalgamation in some States of closer settlement records with those of other authorities has since made it impossible to obtain up-to-date figures for those States and for Australia as a whole. Page 96 of Year Book No. 48 contains particulars as at 30 June 1960 of the areas and costs for those States for which separate information is available.

War Service Land Settlement Scheme

The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939–45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through Loan (War Service Land Settlement) Acts. Finance for other aspects of the scheme in all States is provided by annual parliamentary appropriation. The *States Grants (War Service Land Settlement) Act* 1952 provides that the responsible Commonwealth Minister may make grants of financial assistance to the States under such terms as he may from time to time determine. At 30 June 1969, 13,936,731 acres had been acquired under the scheme and of this 13,531,646 acres has been allotted to 9,105 farms.

Particulars of expenditure on war service land settlement, to 30 June 1968, are given in Year Book No. 55, pages 716–17.

Alienation and occupation of Crown lands

Detailed particulars of the alienation and occupation of Crown lands in the several States and Territories are given in previous issues of the Year Book up to No. 53 (*see* No. 53, pages 878–81).

The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1969.

ALIENATION AND OCCUPATION OF CROWN LANDS: STATES AND TERRITORIES, 1969

	Private lands				*Crown lands*				
	Alienated		*In process of alienation*		*Leased or licensed*		*Other(a)*		*Total area*
State or Territory	*'000 acres*	*Per cent*	*'000 acres*	*Per cent*	*'000 acres*	*Per cent*	*'000 acres*	*Per cent*	*'000 acres*
N.S.W.(*b*) . .	61,821	31.2	4,740	2.4	112,843	57.0	18,632	9.4	198,037
Vic.(*c*) . .	32,156	57.2	2,140	3.8	5,781	10.3	16,168	28.7	56,246
Qld(*d*) . .	26,949	6.3	25,991	6.1	349,553	81.9	24,387	5.7	426,880
S.A.(*b*) . .	15,982	6.6	295	0.1	149,327	61.3	77,640	32.0	243,245
W.A.(*d*) . .	34,312	5.5	14,168	2.3	248,872	39.8	327,237	52.4	624,589
Tas.(*b*) . .	6,655	39.4	236	1.4	5,314	31.4	4,680	27.8	16,885
N.T.(*b*) . .	318	0.1	. .	. .	192,966	57.9	139,695	42.0	332,979
A.C.T.(*b*)(*e*) .	87	14.5	11	1.8	251	41.8	252	41.9	601
Australia .	**178,280**	**160.8**	**47,581**	**17.9**	**1,064,907**	**381.4**	**608,691**	**239.9**	**1,899,462**

(*a*) Occupied by Crown; reserved; unoccupied; unreserved. (*b*) At 30 June. (*c*) At 31 December 1968. (*d*) At 31 December 1969. (*e*) Includes Jervis Bay area.

Number and area of rural holdings

Number and area

A holding in Australia has been defined by statisticians on a more or less uniform basis, and discrepancies which exist are not of sufficient importance to prevent comparisons. For the purpose of these statistics a holding has been defined as land of one acre or more in extent used in the production of agricultural produce or for the raising of livestock and the production of livestock products.

There are considerable fluctuations from time to time in the numbers of very small holdings, and it is very difficult to determine in some cases whether or not they are rural holdings within the definition. In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied for extensive grazing under short-term lease or other arrangement, and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

RURAL HOLDINGS: NUMBER AND AREA, STATES AND TERRITORIES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.(a)*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				NUMBER OF RURAL HOLDINGS					
1964–65 .	77,098	69,737	43,565	28,754	22,856	10,979	307	207	253,503
1965–66 .	76,152	69,199	43,914	28,759	22,853	10,777	305	203	252,162
1966–67 .	76,251	68,466	43,858	28,957	23,181	10,641	304	200	251,858
1967–68 .	76,225	72,802	43,694	29,058	23,116	10,631	305	196	256,027
1968–69 .	76,103	71,056	44,074	29,137	23,004	10,384	317	195	254,270
				TOTAL AREA OF RURAL HOLDINGS ('000 acres)					
1964–65 .	172,148	37,844	377,010	156,955	268,553	6,420	171,482	358	1,190,770
1965–66 .	171,200	37,844	380,325	159,394	270,054	6,496	175,862	355	1,201,531
1966–67 .	171,652	38,653	379,977	161,510	274,765	6,507	170,018	350	1,203,431
1967–68 .	171,767	39,564	380,993	160,765	275,334	6,579	174,385	350	1,209,737
1968–69 .	171,020	39,182	378,956	162,109	276,174	6,591	177,942	346	1,212,320

(*a*) Since 1967–68 the lists of land holdings used in the collection of agricultural and pastoral statistics in Victoria were reconciled with lists of rateable land of one acre or more in extent as recorded by municipalities for rating purposes.

Land utilisation of rural holdings

The following table shows the purposes for which the land on the rural holdings referred to in the preceding paragraph was used.

RURAL HOLDINGS: LAND UTILISATION, 1964-65 TO 1968-69
('000 acres)

Year	*Area used for crops(a)*	*Land lying fallow(b)*	*Area under sown grasses and clovers(c)*	*Balance of holdings(d)*	*Total area of holdings*
1968–69—					
New South Wales	15,259	2,686	10,268	142,807	171,020
Victoria(*e*)	6,156	2,727	18,003	12,295	39,182
Queensland	5,268	918	4,973	367,796	378,956
South Australia	7,382	1,302	5,961	147,463	162,109
Western Australia	9,490	1,828	15,363	249,494	276,174
Tasmania	268	61	1,934	4,329	6,591
Northern Territory	2	..	103	177,837	177,942
Australian Capital Territory	10	2	88	246	346
Australia	**43,836**	**9,525**	**56,693**	**1,102,266**	**1,212,320**
1967–68	38,735	9,340	54,374	1,107,287	1,209,737
1966–67	37,087	9,784	51,471	1,105,090	1,203,431
1965–66	32,798	10,471	48,519	1,109,742	1,201,531
1964–65	32,251	8,466	47,159	1,102,894	1,190,770

(*a*) Excludes (i) duplication on account of area double cropped, except for New South Wales and South Australia, and (ii) clovers and grasses cut for hay and seed which have been included in Area under sown grasses and clovers, and differs therefore from crop area figures shown later in this chapter. (*b*) Excludes short or summer fallow. (*c*) Includes paspalum. (*d*) Used for grazing, lying idle, etc. (*e*) *See* footnote (*a*) to previous table.

Classification by size and type of activity

Some of the information obtained from the 1965–66 Agricultural and Pastoral Census has been classified by size of principal characteristics (area of holdings, area of sown grasses and clovers, area of selected crops, and numbers of livestock). In addition, all holdings have been classified according to type of activity. Tables showing this information, for statistical divisions and States, and an outline of the methods used have been published in a series of bulletins *Classification of Rural Holdings by Size and Type of Activity*, 1965–66. Similar information was published in a series of bulletins for the year 1959–60. A size classification for each State is available for the year 1955–56.

Employment on rural holdings

Persons engaged

The following table shows, for each State and Territory, the recorded number of males working on rural holdings. Particulars for females are not available except for New South Wales and Victoria. Additional particulars relating to the number of males employed in agriculture up to 1941-42 are shown in Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

MALES(*a*) ENGAGED ON RURAL HOLDINGS: STATES AND TERRITORIES, 31 MARCH 1969

Males engaged	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Permanent—									
Owners, lessees or share-farmers	61,609	52,827	44,817	21,802	18,866	6,915	220	136	207,192
Relatives of owner, lessee or share-farmer, over 14 years of age, not receiving wages or salary	1,992	5,279	2,456	306	1,346	..	31	11	11,421
Employees, including managers and relatives working for wages or salary	27,347	13,587	16,977	7,328	8,640	3,842	1,455	118	79,294
Total permanent males	*90,948*	*71,693*	*64,250*	*29,436*	*28,852*	*10,757*	*1,706*	*265*	*297,907*
Temporary	24,540	17,551	14,548	10,181	(*b*)	4,831	385	15	(*b*)
Total males	**115,488**	**89,244**	**78,798**	**39,617**	(*b*)	**15,588**	**2,091**	**280**	(*b*)

(*a*) Details for females not available except for New South Wales and Victoria. (*b*) Not available for publication.

Information regarding the number of persons (males and females) working full-time on rural holdings in Australia at 31 March of years to 1958 appears in Year Book No. 50, page 987, and in earlier Year Books. Data for subsequent years are the subject of investigation and are not available at this stage.

Salaries and wages paid

Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings are shown below for the year 1968–69. Data for New South Wales, and hence Australia, are not available.

EMPLOYEES ON RURAL HOLDINGS: SALARIES AND WAGES PAID(*a*)
STATES AND TERRITORIES, 1968-69
($'000)

Employees	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Males and females—									
Permanent	(*b*)	29,658	39,639	15,865	19,848	8,777	3,180	486	n.a.
Temporary(*c*)		28,117	50,126	13,501	18,506	5,830	440	168	
Total		**57,775**	**89,765**	**29,366**	**38,354**	**14,607**	**3,620**	**653**	

(*a*) Includes value of keep. (*b*) Not available. (*c*) Includes amounts paid to contractors.

Similar information for Australia for years up to 1957–58 is given in Year Book No. 50, page 988, and in earlier Year Books. Particulars for subsequent years are the subject of investigation and are not available at this stage.

Persons residing permanently on holdings

Particulars of persons (of all ages) residing permanently on rural holdings in each State and Territory at 31 March 1969, and thoughout Australia for a series of years, are as follows.

PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS
STATES AND TERRITORIES, 31 MARCH 1969

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*(*a*)	*A.C.T.*	*Aust.*
Males	150,099	135,605	99,779	56,059	48,509	22,697	3,170	447	516,365
Females	131,054	120,465	82,980	49,737	40,403	20,614	2,158	398	447,809
Total	**281,153**	**256,070**	**182,759**	**105,796**	**88,912**	**43,311**	**5,328**	**845**	**964,174**

(*a*) Includes Aborigines.

PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS
AUSTRALIA, 31 MARCH 1965 TO 1969

	31 March				
	1965	*1966*	*1967*	*1968*	*1969*
Males	538,496	533,039	529,378	525,754	516,365
Females	464,416	461,683	457,507	455,050	447,809
Total	**1,002,912**	**994,722**	**986,885**	**980,804**	**964,174**

Farm machinery on rural holdings

The tables following show data for the principal types of farm machinery on rural holdings in the several States and Territories at 31 March 1969 and throughout Australia for a series of years. A more detailed analysis of tractors on rural holdings according to horse-power, type of fuel used, and age of tractor has been published in the Statistical Bulletin *Tractors on Rural Holdings—Australia, 31 March 1969*. Details of grain and seed harvesters on rural holdings at 31 March 1967, classified according to type of propulsion, width of cut, age and type of front have been published in the statistical bulletin: *Grain and Seed Harvesters on Rural Holdings, 31 March 1967*.

FARM MACHINERY ON RURAL HOLDINGS: STATES AND TERRITORIES, 31 MARCH 1969

Machinery	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Cultivating—									
Rotary hoes and rotary tillers—									
Self-contained power unit	8,692	7,289	3,035	3,624	1,743	1,292	47	n.a.	(*a*)25,722
Tractor-mounted or trailing type	7,540	5,626	4,255	2,163	1,578	962	20		(*a*)22,144
Seeding and planting—									
Grain drills—									
Combine type	29,045	20,217	14,066	15,763	13,954	1,480	63	62	94,650
Other types	5,969	9,002	2,297	5,074	3,661	2,445	9	33	28,490
Maize and cotton planters(*b*)	8,449	909	9,003	. .	109	. .	18	7	18,495
Fertiliser distributors and broadcasters	25,062	30,383	15,906	9,772	9,861	5,976	53	106	97,119
Harvesting—									
Grain and seed headers and harvesters(*c*)—									
Self-propelled	4,842	1,611	2,938	2,152	1,524	114	23	9	13,213
Tractor drawn	16,421	12,568	4,648	9,890	9,709	597	21	29	53,883
Pick-up balers	11,755	14,106	3,039	5,305	3,905	1,957	26	49	40,142
Forage harvesters	2,714	2,080	1,352	896	614	329	21	10	8,016
Other—									
Shearing machines (number of stands)	73,647	43,393	18,857	29,868	25,355	4,862	13	291	196,286
Milking machines (number of units)	39,557	112,618	35,401	17,908	9,036	17,057	24	97	231,698
Tractors(*d*)—									
Wheel	80,756	79,101	62,355	33,534	31,388	11,642	313	208	299,297
Crawler	5,585	2,958	7,883	3,040	3,617	1,108	98	10	24,299

(*a*) Incomplete. (*b*) Number of units, i.e. number of rows that can be planted simultaneously. (*c*) Excludes reapers, binders, specialised clover harvesters and forage harvesters. (*d*) *See* text above.

FARM MACHINERY ON RURAL HOLDINGS: AUSTRALIA 31 MARCH 1965 TO 1969

	31 March—				
Machinery	*1965*	*1966*	*1967*	*1968*	*1969*
Rotary hoes and rotary tillers—					
Self-contained power unit	(*a*)40,195	45,267	27,788	27,174	25,722
Tractor-mounted or trailing type			17,881	20,333	22,144
Seeding and planting—					
Grain drills—					
Combine type	90,008	90,866	92,530	94,094	94,650
Other types	30,537	30,401	29,605	29,634	28,490
Maize and cotton planters	15,220	14,523	14,260	13,826	(*b*)18,495
Fertiliser distributors and broadcasters	86,653	86,409	93,064	95,853	97,119
Harvesting—					
Grain and seed headers and harvesters—					
Self-propelled	65,568	64,744	10,273	11,953	13,213
Tractor drawn			54,644	55,929	53,883
Pick-up bailers	32,278	34,229	36,688	38,211	40,142
Forage harvesters	5,676	6,385	7,214	7,545	8,016
Other—					
Shearing machines (number of stands)	186,393	188,496	193,226	195,542	196,286
Milking machines (number of units)	231,389	233,625	235,325	233,022	231,698
Tractors—					
Wheel	295,502	278,118	314,670	323,982	299,297
Crawler		22,741			24,299

(*a*) Incomplete; excludes tractor-drawn rotary hoes and rotary tillers in Queensland. (*b*) Definition changed in 1969 when informants were asked to report in terms of number of units, i.e. the number of rows that can be planted simultaneously. Figures not strictly comparable with earlier years.

The soils of Australia

Year Book No. 52 contains an article (pages 873–9) on the soils of Australia which deals with the following matters: nature and development of Australian soils, including the agricultural development of soils, and types of Australian soils. A soil map of Australia and illustrations are included on plates 47 to 51 of Year Book No. 52.

Soil improvement and conservation

Fertilisers

The Australian output of prepared fertilisers is derived chiefly from imported rock phosphate. Complete information regarding local production of fertilisers is not available. But the production of superphosphate in Australia during 1968–69 amounted to 3,928,000 tons.

Information regarding the area treated with artificial fertilisers and the quantity, of artificial fertilisers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1968–69 season is given in the following table.

AREA FERTILISED AND QUANTITY OF ARTIFICIAL FERTILISERS USED
STATES AND TERRITORIES, 1968-69

	Crops			*Pastures*			*Total*		
State or Territory	*Area fertilised*	*Super-phosphate used*	*Other artificial fertilisers used*	*Area fertilised*	*Super-phosphate used*	*Other artificial fertilisers used*	*Area fertilised*	*Super-phosphate used*	*Other artificial fertilisers used*
	'000 acres	tons	tons	'000 acres	tons	tons	'000 acres	tons	tons
New South Wales.	8,963	341,298	93,609	7,867	440,683	22,303	16,830	781,981	115,912
Victoria . .	5,654	262,865	53,556	9,233	568,648	69,738	14,887	831,513	123,294
Queensland . .	1,384	34,371	196,101	299	26,919	7,582	1,683	61,290	203,683
South Australia .	6,007	312,949	21,716	4,270	242,488	3,603	10,277	555,437	25,319
Western Australia.	9,460	513,782	78,538	13,037	708,774	22,199	22,497	1,222,556	100,737
Tasmania . .	252	24,364	12,578	1,481	114,375	9,146	1,733	138,738	21,724
Northern Territory	20	550	2,701	36	1,854	12	56	2,404	2,713
Australian Capital Territory . .	8	442	48	34	1,692	13	41	2,134	61
Australia .	31,748	1,490,621	458,847	36,257	2,105,433	134,596	68,004	3,596,053	593,443

Particulars of the quantity of artificial fertilisers used in each State and Territory during each of the seasons 1964–65 to 1968–69 are shown in the next table. These details include the quantity used for the top-dressing of pasture lands.

QUANTITY OF ARTIFICIAL FERTILISERS USED: STATES AND TERRITORIES
1964-65 TO 1968-69
(Tons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	837,959	988,106	198,696	528,827	844,455	142,660	307	5,225	3,546,235
1965–66	839,955	1,054,393	214,487	561,962	972,432	163,925	672	3,777	3,811,603
1966–67	864,569	1,113,392	242,615	598,808	1,096,555	169,756	681	3,393	4,089,769
1967–68	893,469	1,068,605	263,460	599,877	1,219,968	172,195	4,629	2,695	4,224,898
1968–69	897,893	954,807	264,973	580,756	1,323,293	160,462	5,117	2,195	4,189,496

The chief sources of Australia's supplies of natural phosphate are Nauru, Christmas Island (Indian Ocean), the United States of America and Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

ARTIFICIAL FERTILISERS: IMPORTS INTO AUSTRALIA, 1964-65 TO 1968-69

Fertiliser	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
		QUANTITY ('000 cwt)			
Ammonium fertilisers	1,565	1,311	1,973	2,893	2,193
Potassium fertilisers	2,180	2,163	2,398	2,602	2,699
Natural phosphate	50,346	55,901	65,436	65,916	63,531
Sodium nitrate	221	153	99	161	103
Other	746	335	885	887	1,603
Total	**55,058**	**59,862**	**70,791**	**72,458**	**70,129**
		VALUE ($'000 f.o.b.)			
Ammonium fertilisers	3,132	2,841	4,161	5,016	3,813
Potassium fertilisers	3,441	3,550	3,875	3,770	3,457
Natural phosphate	17,978	21,543	29,050	32,162	31,606
Sodium nitrate	443	393	249	390	255
Other	2,532	1,181	2,698	3,219	4,247
Total	**27,526**	**29,508**	**40,033**	**44,557**	**43,378**

Exports of fertilisers (manufactured locally) amounted to 34,000 cwt valued at $184,000 in 1968–69 compared with 31,000 cwt valued at $160,000 in 1967–68.

Aerial agriculture

Extensive use is made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures, and for pest and vermin extermination.

For 1956–57 (the first year for which data are available) the total area treated was 1,466,000 acres; in 1968–69 the total was 14,416,000 acres. The following table shows details of area treated and materials used for each State for the five years ended 31 March 1969.

AERIAL AGRICULTURE, 1964-65 TO 1968-69

Year ended 31 March	*Area topdressed and seeded*	*Area sprayed*	*Total area treated(a)*	*Materials used*		*Total flying time*
				Super-phosphate	*Seed*	
1969—	'000 acres	'000 acres	'000 acres	tons	'000 lb	hours
New South Wales(*b*)	4,969	(*c*)	6,280	233,869	(*c*)	43,420
Victoria	(*c*)	(*c*)	1,956	87,225	157	15,536
Queensland(*d*)	994	(*c*)	(*c*)	15,123	(*c*)	(*c*)
South Australia	(*c*)	369	856	(*c*)	(*c*)	4,794
Western Australia	1,346	(*c*)	(*c*)	52,403	108	18,989
Tasmania	(*c*)	(*c*)	(*c*)	(*c*)	33	(*c*)
Australia	**9,474**	**4,580**	**14,416**	**436,589**	**4,125**	**99,639**
1968	10,495	(*c*)	14,348	524,374	3,249	102,112
1967	11,646	3,192	15,237	596,628	2,407	108,688
1966	11,314	3,469	15,010	588,045	1,581	108,850
1965	14,147	2,416	16,640	656,094	3,467	108,753

(*a*) Includes other types of treatment (rabbit baiting, etc.). (*b*) Includes details for the Australian Capital Territory. (*c*) Not available for publication. (*d*) Includes details for the Northern Territory.

Pasture improvement

An article on pasture improvement, which includes notes on indigenous and introduced species of grasses and which traces the development of pasture research in Australia, appears on pages 1001–2 of Year Book No. 49.

Soil conservation

Year Book No. 49 contains an article (pages 1003–4) on soil conservation which deals with the following matters: land use and soil erosion, agents of erosion, prevention and control, and the activities of various Commonwealth and State authorities which promote and co-ordinate research into the problems of soil erosion and the initiation of preventive measures.

AGRICULTURAL PRODUCTION

In general, statistics in this chapter relating to agricultural production are derived from 'census' returns supplied by approximately 254,000 farmers who utilise one acre or more of land for agricultural or pastoral purposes. The latest figures available are those for the year 1968–69. The returns are collected on a substantially uniform basis in all States at 31 March each year, and relate mainly to crops sown in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources these are used in conjunction with the 'census' returns. The statistics published in this section are therefore shown in 'agricultural' years. For most purposes there will be little error involved in considering them as applying to years ended 30 June.

For more detailed information on period covered and details of the weights and measures used in recording production of agricultural commodities *see* introductory notes to the bulletin *Rural Industries*. Details of weights and measures are also included after the Contents of this Year Book.

Progress, assistance and control

Progress of cultivation

The following table shows the area of crops in each of the States and Territories of Australia at ten-yearly intervals since 1860-61 and during each of the ten seasons 1959-60 to 1968-69. Plate 38 in this chapter shows the area of crops in Australia from 1900–01 onward (page 758).

AREA OF CROPS: STATES AND TERRITORIES, 1860-61 TO 1968-69
('000 acres)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1860–61 .	246	387	4	359	25	153	..	..	1,174
1870–71 .	385	693	52	802	55	157	..	..	2,144
1880–81 .	606	1,549	114	2,087	64	141	..	..	4,561
1890–91 .	853	2,032	225	2,093	70	157	..	..	5,430
1900–01 .	2,447	3,114	458	2,370	201	224	..	..	8,814
1910–11 .	3,386	3,952	667	2,747	855	287	..	..	11,894
1920–21 .	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930–31 .	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940–41 .	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1950–51 .	4,761	4,537	2,077	3,812	4,650	290	n.a.	6	20,133
1959–60 .	7,137	4,817	2,926	4,400	6,495	322	1	7	26,105
1960–61 .	8,044	5,838	3,057	5,399	6,871	357	2	8	29,576
1961–62 .	8,288	5,626	3,216	5,024	7,112	364	2	7	29,639
1962–63 .	8,903	6,318	3,490	5,495	7,482	395	2	7	32,092
1963–64 .	8,997	6,102	3,665	5,975	6,915	380	3	8	32,045
1964–65 .	10,334	6,477	3,967	5,965	7,505	404	4	9	34,665
1965–66 .	9,052	6,219	4,119	6,030	8,680	386	4	8	34,498
1966–67 .	12,421	6,765	4,605	6,488	8,817	444	4	10	39,553
1967–68 .	12,985	6,250	4,928	6,430	9,138	423	6	7	40,168
1968–69 .	15,570	7,910	5,449	7,704	9,812	476	7	11	46,940

The Australian Agricultural Council

The influence of governmental and semi-governmental authorities on Australian rural industry is most apparent in the fields of guaranteed prices, subsidies and controlled marketing. Many of these aspects of intervention at the national level take place indirectly through the Australian Agricultural Council. This is a permanent organisation which was formed following a conference of Commonwealth and State Ministers on agricultural and marketing matters held at Canberra in December 1934. The Council consists of the Commonwealth Ministers for Primary Industry, Trade and Industry, Interior, and External Territories and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are: the promotion of the welfare and development of agricultural industries generally; the exchange of information on agricultural production and marketing; the improvement of the quality of agricultural products and the maintenance of high grade standards; to ensure, as far as possible, balance between production and available markets; and organised marketing.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research and to secure co-operation, between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

The Standing Committee on Agriculture comprises the permanent heads of the State Departments of Agriculture, the Secretary, Department of Primary Industry, and a representative each from the Commonwealth Departments of the Treasury, Health, Trade and Industry, Interior, External Territories, and from the Commonwealth Scientific and Industrial Research Organization.

Financial assistance to primary producers

Financial assistance to primary producers by the Commonwealth Government may be provided in a number of ways. *See also* pages 546 and 557–9, Chapter 19, Public Finance. Examples of these follow.

Bounties. A bounty to producers, not exceeding $4,000,000 in any one year, is currently paid on raw cotton produced in Australia. Commencing with the 1969 cotton crop the bounty will be phased out. In 1969 the total available will be $4,000,000; in 1970, $3,000,000 and in 1971 $2,000,000. Payments will cease after that time.

A bounty of $27,000,000 paid annually on the production of butter, cheese and related butterfat products and an export bounty on processed milk products of a maximum of $800,000 annually are both continued in the fifth Five Year Dairy Industry Stabilization Plan which commenced 1 July 1967.

Commitments to industry-financed stabilisation schemes. In schemes of this nature the Commonwealth generally accepts a defined contingent liability to contribute to Government-approved stabilisation funds if falling prices, or rising costs, or both, lead to a situation where growers' contributions prove inadequate. The Dried Vine Fruits Stabilization Fund and the Wheat Prices Stabilization Fund are examples of this.

The Commonwealth Government also pays for cattle tick control, flood, drought and bush fire relief and fisheries research.

Over recent years, legislative research schemes financed by matching contributions from the Commonwealth, and industry or States, or both, have been initiated in regard to tobacco, wool, wheat, dairy produce, meat, chicken meat, eggs and wine. Non-legislative schemes, on a similar financial basis, have been operative in relation to other research projects, e.g. plague locusts, pest management in pome fruit orchards, grape crop forecasting, honey research, barley research, banana research, fruit fly research and vegetable research.

Agricultural research

Each State Department of Agriculture has a number of research stations, investigating mainly problems of the regions in which they are located. In addition, a substantial amount of research and investigational work is carried out by these departments on farmers' properties. The work is supported by central laboratory and service facilities in capital cities, and increasingly also by research, analytical and diagnostic laboratories in the country areas. Research results are passed on to farmers through field days, meetings and publications, and through extension staff of the State Departments of Agriculture. In recent years, there has been increasing interest in economic interpretation of research results.

The Commonwealth Scientific and Industrial Research Organisation carries out research at field stations and laboratory facilities in many parts of Australia, and also undertakes developmental studies at national level. Its research programmes in the agricultural and livestock fields are generally designed to give information which is widely applicable in the Australian environment, and which may require further regional interpretation and adaptation in order that it may be of use to the farming industries. The Universities also carry out agricultural research at laboratory and field levels, in addition to their teaching functions.

For details of agricultural training *see* Chapter 20, Education, Cultural Activities and Research.

Extension services

Agricultural extension services are provided by the States through their Departments of Agriculture, and in certain special fields by other State departments and authorities. Extension services also operate in the Northern Territory, Australian Capital Territory and Territory of Papua and New Guinea.

All State Departments of Agriculture have university or agricultural college trained officers located in country areas. They carry out advisory and educational activities in the farming community, through contact with individual farmers, and through group and general publicity channels. In recent years several States have placed agricultural economists in country areas, strengthening the economic and farm management content of extension.

Support for the field extension staff is provided by information service groups, by applied research teams and industry and subject matter specialist groups, and by diagnostic and analytical services. Some States have advisory staff specialising in agricultural mechanisation, and one State has begun to place extension method specialists in country areas.

Information services operated by Departments of Agriculture include agricultural journals, periodicals in various industry fields, pamphlets, newsletters, films, radio talks and television presentations. Group activities include discussion groups, field days, demonstrations, evening meetings and displays.

Since 1948 the Commonwealth has provided unmatched grants to the States to assist them in expanding their extension activities. In 1966, a five-year programme of rapid expansion of this assistance beyond the existing provision of $1.4 million per annum was undertaken. The amount available for 1969–70 is $4.9 million, and the Commonwealth is prepared to make available up to $5.4 million per annum by the end of the five years. The Commonwealth Extension Services Grant is used mainly by State Departments of Agriculture, and its scope includes extension, regional research, information, economic services and training.

Limited services are available from non-government sources. Some commercial firms and co-operatives provide extension or advisory services primarily for their clients. Farmers themselves have grouped together to employ advisors in farm management clubs, and this movement has no doubt helped stimulate the development of independent management consultants who can provide services ranging from property assessment or supervision to detailed farm management and development plans.

Distribution, production and value of crops

Distribution of crops

The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the Commonwealth. Generally, cereal crops (excluding rice and sorghum) are grown in all States over wide areas, while industrial crops are confined to specific locations in a few States. A graph showing the area sown to principal crops for the years 1900–01 to 1968–69 appears on plate 38, page 758.

AREA OF CROPS: STATES AND TERRITORIES, 1968-69

(Acres)

Crops	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Cereals for grain—									
Barley—									
2-row	290,917	387,165	384,901	1,333,466	198,260	25,299	..	..	2,620,008
6-row	195,434	21,856	42,053	78,856	354,550	915	..	..	693,664
Maize	54,484	1,161	(*a*)120,200	..	39	..	..	..	175,884
Oats	1,184,751	991,334	55,042	515,606	1,092,469	31,434	..	1,200	3,871,836
Panicum, millet and setaria	665	2,671	(*a*)60,913	..	..	..	..	..	64,249
Rice	82,773	..	494	..	(*b*)	..	(*c*)	..	(*d*)83,267
Rye	8,676	11,689	223	67,397	8,986	33	..	..	97,004
Sorghum	136,945	1,306	(*a*)436,479	..	8,679	..	(*c*)	..	(*d*)583,409
Wheat	9,961,678	3,984,084	1,788,583	3,748,418	7,295,094	17,394	..	4,158	26,799,409
Hay	822,871	1,847,047	111,927	614,881	341,176	210,563	2,113	4,385	3,954,963
Green fodder	2,428,028	352,147	1,405,622	1,130,126	297,168	98,784	704	1,307	5,713,886
Other stock fodder	18,548	21,045	2,338	26,428	7,763	28,985	(*b*)	..	(*d*)105,107
Grass seed—									
Lucerne	35,186	(*e*)	585	36,588	..	..	..	..	(*d*)72,359
Clover	14,234	7,029	15	11,231	104,341	436	..	..	137,286
Other	9,453	30,601	42,900	15,431	26,994	4,060	(*f*)3,662	..	133,101
Industrial crops—									
Broom millet	2,931	337	178	..	14	..	..	..	3,460
Canary seed	158	..	23,375	(*b*)	..	..	..	..	(*d*)23,533
Cotton	59,769	..	(*a*)12,140	..	8,327	..	..	..	80,236
Flax for linseed	15.164	14,304	21,459	1,025	18,645	..	..	..	70,597
Hops	..	(*g*)797	..	..	(*b*)	(*h*)1,595	..	..	(*d*)2,392
Peanuts	183	..	78,454	..	..	..	(*b*)	..	(*d*)78,637
Safflower	2,415	199	43,589	..	170	..	..	..	46,373
Sugar cane—									
For crushing	22,174	..	546,306	..	..	..	..	..	568,480
Stand-over and cut for plants	19,187	..	97,551	..	..	..	..	..	116,738
Sunflower	4,440	937	14,160	..	(*b*)	..	..	..	(*d*)19,537
Tobacco	2,190	9,727	13,837	..	..	..	..	..	25,754
Other	(*b*)	1,000	165	(*b*)	..	318	..	..	(*d*)1,483
Vegetables for human consumption—									
Onions	1,520	3,634	3,756	1,883	359	155	(*i*)	(*i*)	(*d*)11,307
Potatoes	29,236	39,979	18,515	7,643	6,588	11,461	(*i*)	15	(*d*)113,437
Other	44,686	52,042	57,557	9,997	7,906	21.521	255	94	194,058
Vineyards—									
Bearing	19,550	44,719	3,178	53,213	6,733	..	..	..	127,393
Not bearing	3,199	4,251	330	7,361	537	..	..	..	15,678
Fruit—									
Bearing	77,471	57,094	38,361	32,520	19,596	17,292	62	25	242,421
Not bearing	17,214	14,504	14,389	11,977	5,770	4,137	28	7	68,026
Nurseries and cut flowers	1,361	2,766	552	318	244	109	..	9	5,359
All other crops	2,131	4,203	8,909	119	1,699	1,852	355	15	19,283
Total area	15,569,622	7,909,628	5,449,036	7,704,484	9,812,107	476,343	7,179	11,215	46,939,614

(*a*) Sown 1967–68. (*b*) Not available for publication. Included in All other crops. (*c*) Not available for publication. Excluded from totals. (*d*) Incomplete; *see* individual States. (*e*) Not available separately. Included by All other crops. (*f*) Excludes area sown simultaneously to oats. (*g*) Includes 28 acres not bearing. (*h*) Includes 74 acres not bearing. (*i*) Not available for publication. Included in Other vegetables.

AREA OF CROPS: AUSTRALIA

1900-01 TO 1968-69

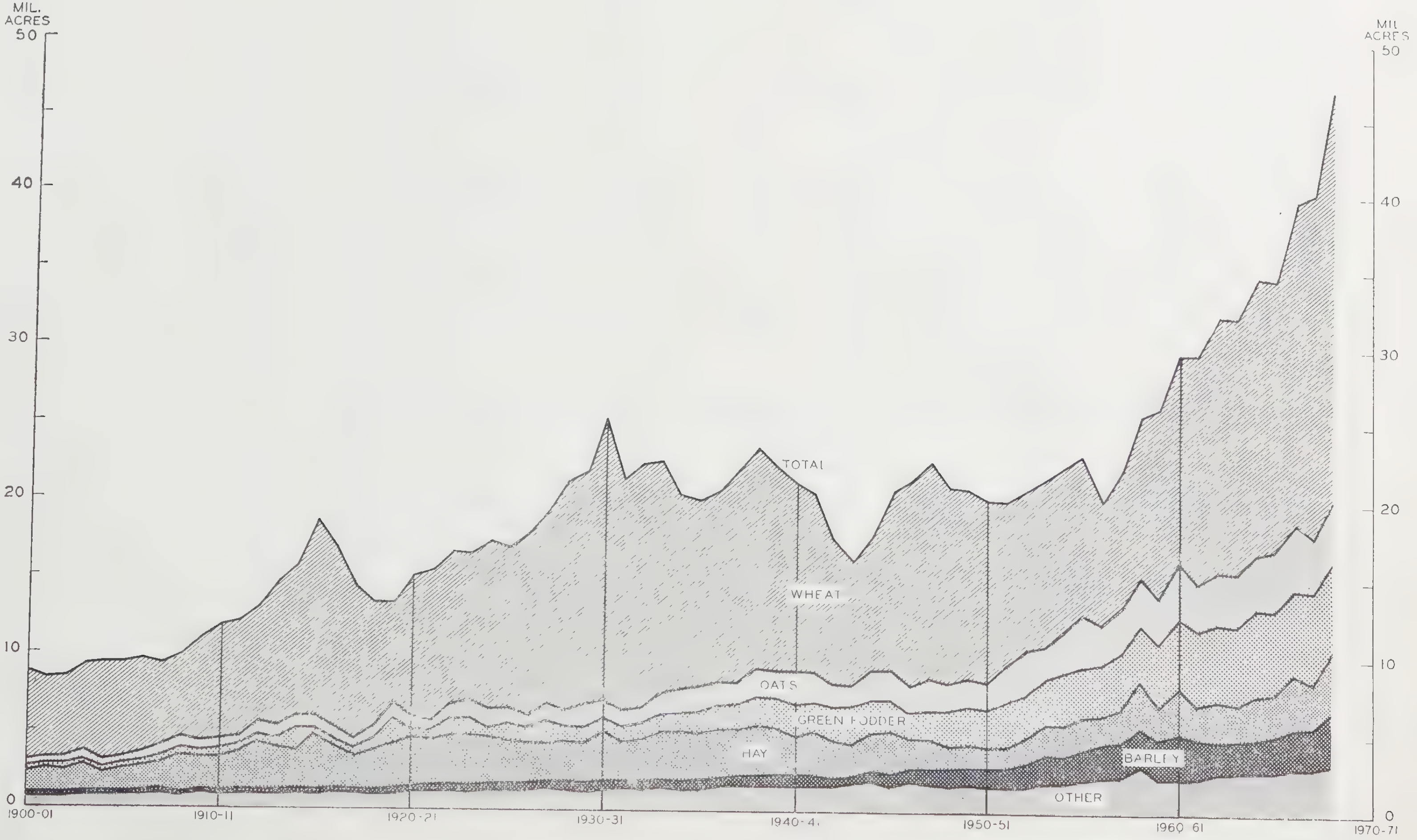


PLATE 38

AREA OF CROPS: AUSTRALIA, 1964-65 TO 1968-69

('000 acres)

Crop	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Cereals for grain—					
Barley—					
2-row	1,655	1,766	1,951	2,074	2,620
6-row	409	531	546	538	694
Maize	212	197	201	200	176
Oats	3,497	3,768	4,258	3,380	3,872
Rice	62	64	74	76	83
Sorghum	346	433	502	462	583
Wheat	17,919	17,515	20,823	22,441	26,799
Hay	2,793	2,780	3,496	2,800	3,955
Green fodder	5,614	5,324	5,399	5,916	5,714
Grass seed	258	227	304	248	343
Industrial crops—					
Cotton	38	55	53	77	80
Flax for linseed	134	25	35	54	71
Hops	2	2	2	2	2
Peanuts	46	58	70	62	79
Safflower	48	60	95	105	46
Sugar cane	628	647	669	675	685
Tobacco	26	23	22	23	26
Vegetables for human consumption—					
Onions	10	8	10	10	11
Potatoes	88	96	99	106	113
Other.	168	185	184	178	194
Vineyards	139	140	139	140	143
Fruit	311	313	313	311	310
All other crops	262	282	308	292	339
Total	**34,665**	**34,498**	**39,553**	**40,168**	**46,940**

Production and yield per acre of crops

PRODUCTION OF CROPS: STATES AND TERRITORIES, 1968-69

Crop		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Cereals for grain—										
Barley—										
2-row . .	'000 bus	6,032	8,394	11,812	27,630	3,712	858	. .	. .	58,438
6-row . .	„	5,179	491	1,058	1,921	5,475	26	. .	. .	14,149
Maize . . .		3,083	72	(*a*)3,670	. .	1	. .	. .	. .	6,826
Oats . . .	„	27 454	30,230	1,119	11,895	22,942	583	. .	27	94,250
Panicum, millet and setaria .	„	9	58	(*a*)876	. .	. .	. .	. .	. .	943
Rice . . .	„	13,392	. .	28	. .	(*b*)	. .	(*b*)	. .	(*c*)13,420
Rye . . .	„	97	70	5	365	59	. .	. .	. .	597
Sorghum . .	„	3,927	46	(*a*)11,800	. .	58	. .	(*b*)	. .	(*c*)15.831
Wheat . .	„	215,119	90,728	42,000	83,160	112,450	410	. .	84	543,950
Hay . . .	'000 tons	1,439	3,635	263	985	501	494	5	7	7,330
Grass seed—										
Lucerne . .	cwt	24.199	n.a.	769	30.194	. .	. .	. .	. .	(*c*)55,162
Clover . .	„	27.135	9,883	5	26.084	198,746	475	. .	. .	262.328
Other . . .	„	8.102	42.836	40,432	23.446	61,132	14,131	5.596	. .	195.675
Industrial crops—										
Broom millet—										
Fibre . .	cwt	20,690	1,757	576	. .	100	. .	. .	. .	23,123
Grain . .	bushels	22.473	1,132	n.a.	. .	. .	. .	. .	. .	23.605
Canary seed .	bus	2,020	. .	218,122	(*b*)	. .	. .	. .	. .	(*c*)220,142
Cotton, unginned .	'000 lb	173.759	. .	(*a*)23,363	. .	21,560	. .	. .	. .	218,682
Flax for linseed .	tons	2,614	5,079	6,132	350	5,321	. .	. .	. .	19,496
Hops (dry weight)	cwt	. .	11,614	. .	. .	(*b*)	31,143	. .	. .	(*c*)42,757
Peanuts . .	„	1,861	. .	332,740	. .	. .	. .	(*b*)	. .	(*c*)334,601
Safflower . .	'000 bus	15	1	553	. .	1	. .	. .	. .	570
Sugar cane for crushing . .	'000 tons	998	. .	17,415	. .	. .	. .	. .	. .	18,413
Sunflower . .	cwt	23.252	7,042	59,393	. .	(*b*)	. .	. .	. .	(*c*)89,687
Tobacco, dried leaf	'000 lb	2.481	12.075	19.517	. .	. .	. .	. .	. .	34,072
Vegetables for human consumption—										
Onions . .	tons	11,084	21,282	28,365	18,639	5,494	1,281	(*b*)	(*b*)	(*c*)86.145
Potatoes . .	„	160,823	299,961	122,990	68,018	74,435	72,120	(*b*)	131	(*c*)798,478
Vinyards—										
Grapes—										
For drying . .	„	38,756	168,682	. .	14,012	7,479	. .	. .	. .	228.929
For table . .	„	7,470	6,939	5,913	587	1,729	. .	. .	. .	22.638
For wine . .	„	54,313	29,450	274	202,937	6,128	. .	. .	. .	293.102

(*a*) Harvested from crop sown in 1967–68. (*b*) Not available for publication. (*c*) Incomplete; *see* Individual States.

PRODUCTION OF PRINCIPAL CROPS: AUSTRALIA, 1964–65 TO 1968–69

Crop		*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Cereals for grain—						
Barley—						
2-row	'000 bus	41,775	33,235	49,207	28,731	58,438
6-row	,,	7,540	8,600	12,381	8,067	14,149
Maize	,,	6,879	4,918	7,491	7,132	6,826
Oats	,,	70,043	60,739	107,106	39,628	94,250
Rice	,,	8,030	9,540	11,250	11,597	13,420
Sorghum	,,	7,164	7,149	11,713	10,582	15,831
Wheat	,,	368,789	259,666	466,610	277,289	543,950
Hay	'000 tons	4,963	4,179	6,371	3,812	7,330
Grass seed	cwt	411,919	356,815	488,477	317,303	513,165
Industrial crops—						
Cotton, unginned	'000 lb	63,009	133,850	120,360	214,736	218,682
Flax for linseed	tons	46,600	6,064	13,744	10,482	19,496
Hops (dry weight)	cwt	27,892	36,463	28,907	36,752	42,757
Peanuts	,,	207,115	548,279	827,151	606,159	334,601
Safflower	'000 bus	697	550	1,369	878	570
Sugar cane for crushing	'000 tons	15,070	14,155	16,685	16,756	18,413
Tobacco (dried leaf)	'000 lb	25,111	27,361	27,905	24,721	34,072
Vegetables for human consumption—						
Onions	'000 tons	70	58	84	58	86
Potatoes	,,	508	639	643	658	798
Vineyards—						
Grapes	,,	680	582	684	629	545
Wine made (*a*)	'000 gal	38,718	34,125	41,514	44,231	51,936
Dried vine fruits	'000 tons	108	91	107	85	55

(*a*) Net factory and farm production of beverage and distillation wine. This excludes the liquid gallonage of spirits added in wine fortifying.

YIELD PER ACRE OF PRINCIPAL CROPS: AUSTRALIA, 1964–65 TO 1968–69

Crop		*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Cereals for grain—						
Barley—						
2-row	bushels	25.2	18.8	25.2	13.9	22.3
6-row	,,	18.4	16.2	22.7	15.0	20.4
Maize	,,	32.4	25.0	37.2	35.6	38.8
Oats	,,	20.0	16.1	25.2	11.7	24.3
Rice	,,	130.3	148.1	152.6	152.7	161.2
Sorghum	,,	20.7	16.5	23.3	22.9	27.1
Wheat	,,	20.6	14.8	22.4	12.4	20.3
Hay	tons	1.78	1.50	1.82	1.36	1.85
Industrial crops—						
Cotton, unginned	lb	1,662	2,436	2,264	2,793	2,725
Flax for linseed	tons	0.35	0.25	0.40	0.19	0.28
Hops (dry weight)(*a*)	cwt	13.48	17.16	13.51	16.50	18.67
Peanuts	,,	4.51	9.50	11.86	9.82	4.26
Safflower	bushels	14.68	9.12	14.47	8.40	12.29
Sugar cane for crushing(*a*)	tons	32.04	28.13	29.93	30.30	32.39
Tobacco (dried leaf)	lb	954	1,165	1,247	1,076	1,323
Vegetables for human consumption—						
Onions	tons	7.18	7.04	8.27	5.94	7.62
Potatoes	,,	5.78	6.63	6.47	6.23	7.04
Vineyards—						
Grapes(*a*)	,,	5.42	4.58	5.37	4.92	4.28

(*a*) Per acre of productive crops.

Value of agricultural production

Further reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used may be found in the chapter Miscellaneous.

GROSS VALUE(*a*) OF AGRICULTURAL PRODUCTION: AUSTRALIA, 1964–65 TO 1968–69
($'000)

Crop	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Cereals for grain—					
Barley	55,620	47,932	73,743	42,222	70,531
Maize	9,999	9,517	10,395	9,463	9,733
Oats	51,449	53,323	83,384	34,205	58,763
Rice	8,529	10,224	12,445	12,831	14,358
Wheat	517,702	384,853	689,880	435,443	731,334
Hay	99,209	107,755	151,470	107,434	166,284
Green fodder	25,011	28,380	24,805	30,234	32,577
Industrial crops—					
Cotton, unginned	7,685	14,323	12,468	19,675	20,715
Hops	2,372	3,020	2,531	3,211	3,788
Sugar cane	133,372	119,350	138,431	138,409	158,716
Tobacco (dried leaf)	24,608	30,399	29,782	27,919	38,528
Vegetables for human consumption—					
Onions	5,340	6,667	6,044	7,167	6,366
Potatoes	60,713	43,751	41,233	51,985	43,399
Other vegetables for human consumption	68,335	74,804	82,387	85,417	88,509
Grapes	50,385	43,516	50,173	47,750	44,602
Fruit and nuts	146,242	151,877	162,918	155,250	165,860
All other crops	53,413	51,603	67,183	60,197	69,182
Total	**1,319,984**	**1,181,294**	**1,639,273**	**1,268,812**	**1,723,245**

(*a*) Includes amounts paid as bounty, relief, etc.

Values of agricultural production in the various States and Territories are shown for 1968–69 in the following table. In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant.

GROSS, LOCAL AND NET VALUES OF AGRICULTURAL PRODUCTION
STATES AND TERRITORIES, 1968–69
($'000)

State or Territory	*Gross production valued at principal markets*	*Marketing costs*	*Local value of production*	*Value of materials used in process of production*	*Net value of production (a)*
New South Wales	542,184	118,144	424,040	(*b*)46,513	377,527
Victoria	331,715	55,292	276,423	29,229	247,194
Queensland	363,704	46,900	316,804	55,965	260,839
South Australia	221,097	29,655	191,442	29,836	161,605
Western Australia	218,643	37,371	181,272	44,917	136,355
Tasmania	44,599	10,174	34,424	6,504	27,920
Northern Territory	857	n.a.	857	n.a	857
Australian Capital Territory	446	40	406	19	387
Australia	**1,723,245**	**297,576**	**1,425,668**	**212,983**	**1,212,684**

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowance has been made for costs of power, power kerosene, petrol and other oils.

Indexes of quantum and price of agricultural production

Indexes of quantum and price of agricultural production previously shown in this section are now incorporated in the farm production price and quantum indexes shown in the chapter Miscellaneous.

Wheat

Wheat is grown on a large scale in all States except Tasmania, and is the most important crop in Australia in terms of area, production and exports. The present limits of the wheat belt have been established after considerable fluctuation over the last four decades. In January 1934 a Royal Commission was appointed to inquire into and report upon the economic condition of the growing, handling and marketing of wheat, and the manufacturing, distributing and selling of flour and bread. The Report of this Royal Commission provides an authoritative description of all aspects of the industry up to that time.

Wheat marketing and research

Two of the aspects of governmental and semi-governmental assistance and control which have contributed to the development of the industry are the organisation of overseas marketing and of research.

As a large proportion of the Australian wheat crop is normally exported, the marketing of wheat plays an important part in the industry. The Australian Wheat Board was constituted in September 1939, under National Security (Wheat Acquisition) Regulations, to purchase, sell, or dispose of wheat or wheat products, and to manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations. Details of the operations of the Australian Wheat Board and the Wheat Stabilization Board in licensing wheat grown during the seasons 1941–42 to 1948–49 will be found in Year Book No. 38, pages 940–1, and a detailed survey of legislation relating to stabilisation of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Year Book No. 37, pages 1295–9.

The Wheat Stabilization Board ceased to function on 31 December 1948, and under the *Wheat Industry Stabilization Act* 1948 the Australian Wheat Board was reconstituted to administer the first stabilisation plan and was given powers similar to those held under the National Security Regulations. The new Board commenced to function on 18 December 1948. The Board has been continued in existence by the *Wheat Industry Stabilization Acts* 1954, 1958, 1963–66 and 1968 for the purpose of administering the second, third, fourth and fifth five year stabilisation plans. Details of the more recent plans were published in Year Book No. 40, pages 841 and 842 (1947–48 to 1952–53 Plan), No. 44, page 861 (1953–54 to 1957–58), No. 48, pages 903 and 904 (1958–59 to 1962–63) and No. 54, pages 868 and 869 (1963–64 to 1967–68).

Fifth Post-war Wheat Industry Stabilisation Plan. Following negotiations during 1968, the fifth post-war Wheat Industry Stabilisation Plan was enacted by the Commonwealth and States towards the end of 1968. The new plan operates on very much the same lines as the previous ones. However, there are some important changes in detail in the main features of the plan which are set out below.

The plan operates for five years. It commenced with the 1968–69 wheat crop and will end with the marketing of the 1972–73 crop.

The *Wheat Export Charge Act* 1968 repealed the *Wheat Export Charge Act* 1963 and provided for an export charge on wheat and wheat products for the seasons 1968–69 to 1972–73 inclusive. *See also* page 557, Chapter 19, Public Finance. The charge which may be levied is the excess of the average export return over the sum of the guaranteed price (*see below*) and five cents per bushel with a maximum charge of fifteen cents per bushel. The ceiling on the Wheat Prices Stabilisation Fund, into which this charge is paid, has been raised from $60 million to $80 million. Any excess beyond this figure is returned to growers on a 'first in, first out' basis.

Payments from the Wheat Prices Stabilisation Fund will be paid to the Australian Wheat Board when required, for the purpose of building up the average export price for any season to the guaranteed price. When the average export realisations fall below the guaranteed price the deficiency is made up first by drawing upon the Stabilisation Fund in respect of up to 200 million bushels of wheat from each crop. If the Fund is exhausted, the necessary deficiency payments will be made from the Commonwealth Government's Consolidated Revenue Fund. As the return from exports has been below the guaranteed price, there have been no collections of the wheat export charge since the 1956–57 No. 20 Pool when $3,178,000 was collected. In fact, growers' money in the Fund was exhausted with the closure of the 1959–60 Pool, and since then the Commonwealth has been obliged to meet its commitment in respect of the export guarantee. Up to the closure of the 1967–68 Pool, this has involved an amount totalling $156 million.

The Commonwealth has guaranteed a price to growers applying to 200 million bushels of wheat exported from each crop during the period of the plan. The guaranteed price is subject to adjustment in each year of the plan in accordance with changes in price of cash costs, rail freights and handling and storage charges. There will no longer be any adjustment for imputed costs such as interest on farmers' equity. The guaranteed price per bushel in the 1969–70 season is $1.459 f.o.b. vessel, an increase of 0.9 cents on that of the previous season.

The Australian Wheat Board is retained as the sole constituted authority for the marketing of wheat within Australia and for the marketing of wheat and flour for export from Australia for the period of the plan.

Amending legislation, with effect from December 1969, gave the Australian Wheat Board discretionary power to sell wheat in Australia for purposes other than human consumption at prices below that set for human consumption but not less than the guaranteed price.

The home consumption price for 1969–70, the second year of the fifth plan, has been established at $1.725 per bushel, bulk basis, f.o.r. ports for wheat for human consumption. Wheat for the manufacture of flour for industrial use is priced at $1.435. The basic price for wheat for stock feed is $1.50; however, any purchaser who undertakes to buy the whole of his wheat requirements for stock feed purposes from the Board throughout the year ending 30 November 1970 will be charged $1.435 per bushel. These prices include a loading of 1.6 cents per bushel to cover the cost of transporting wheat from the mainland to Tasmania. There is provision in the plan for annual adjustments to be made to the home consumption price by the same amount as the guaranteed price is adjusted. The home consumption price for the 1968–69 season was $1.71 per bushel for wheat for human consumption and stock feed. This price included a loading of 1 cent per bushel to meet freight charges on wheat shipped to Tasmania.

Wheat delivery quotas plan

In March 1969 the Australian Wheat Growers' Federation put forward proposals for the allotment of quotas on deliveries of wheat to the Australian Wheat Board. The Federation's proposals were mainly designed to bring marketable supplies of wheat more into line with available outlets, following the record 1968–69 harvest. The proposals became effective for the 1969–70 harvest. State governments have the responsibility, for Constitutional reasons, of implementing the quota plan within the States. Each State (except in Queensland where the legislation will operate retrospectively from about March 1970) enacted the necessary enabling legislation in 1969. The period of operation of the legislation varies among the States.

Quotas are subject to annual review. Wheat in excess of a quota may be received from a grower if storage space is available but 'quota wheat' will receive preference as far as receival and subsequent sale by the Australian Wheat Board is concerned.

State quotas effective for the 1969–70 season and those proposed by the Federation and agreed to by all parties for 1970–71 are given below:

	1969–70 mil. bus	1970–71 mil. bus
Basic—		
New South Wales	123	92
Victoria	65	52
South Australia	45	36
Western Australia	86	83
Queensland	25	25
	344	288
Extra—		
New South Wales hard	. .	7
New South Wales prime hard	7	12
Queensland prime hard	6	11
Total	*357*	*318*

Deliveries in 1969–70 made within the quotas established received the usual first advance payment of $1.10 per bushel for f.a.q. bulk wheat, f.o.r. ports basis. The same arrangement will apply to 1970–71 season's quota wheat. In addition, the quota plan provides that wheat received which is declared by the Australian Wheat Board to have been sold and paid for within the season will be treated as quota wheat of the season and receive a first advance payment.

The States are responsible for determining the method of allocation of individual quotas within their respective boundaries. The bases of quota allocation vary from State to State, but in the main, quotas are based on a farm's average deliveries over a recent period.

Wheat standards

A description of the F.A.Q. (fair average quality) standard of wheat is given in issues of the Year Book up to No. 53 (*see*, for example No. 53 page 902). However, over recent years there has been an extension of the system and Australian wheat is now marketed under eleven main different and distinct classifications. Each reflects the climatic and growing characteristics of its region of origin and also the particular characteristics of the varieties of wheat cultivated.

For each classification, samples of wheat are obtained each year and are mixed to give a representative sample of that grade. From these samples, which are representative of all the wheat of a particular classification grown in that region, standards for each grade are established; the bushel weight is determined by the use of the Schopper 1-litre scale chondrometer. This standard is used as the basis for sales of each grade and varies from year to year and from State to State. The eleven different classifications of wheat are:

Queensland prime hard
New South Wales prime hard
South Australian hard
Queensland F.A.Q.
New South Wales northern hard
New South Wales southern–western F.A.Q.
Victorian F.A.Q.
South Australian F.A.Q.
Western Australian F.A.Q.
Western Australian soft
Victorian soft

The six F.A.Q. grades, while possessing some characteristics in common, vary in protein content, milling characteristics, and dough qualities, and all are distinct grades. Similarly, the prime hard, hard, and soft grades are individual grades segregated for specific end uses.

Australia currently produces a full range of wheats for all purposes from high protein hard wheats to low protein soft wheats.

Bulk handling and storage of wheat

A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954–8 of Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and in more recent years other States have also introduced bulk systems. The bodies concerned with the administration of bulk handling in the various States are: Grain Elevators Board of New South Wales, Victorian Grain Elevators Board, State Wheat Board (Queensland), South Australian Co-operative Bulk Handling Ltd, Co-operative Bulk Handling Ltd. (Western Australia), and the Tasmanian Grain Elevators Board.

WHEAT: TOTAL CAPACITY OF BULK HANDLING FACILITIES(*a*) STATES, 30 NOVEMBER 1965 TO 1969

(*Source:* Bulk handling authorities in the various States. *See* above)

('000 bushels)

State	*1965*	*1966*	*1967*	*1968*	*1969*
New South Wales	(*b*)101,992	(*b*)141,182	(*b*)132,792	184,972	212,600
Victoria(*c*)	102,609	105,038	105,514	108,090	130,000
Queensland	15,956	19,213	24,987	30.600	32,700
South Australia	39,685	43,328	58,362	73,050	(*d*)95,486
Western Australia	128,175	134,898	144,487	159,677	183,787
Tasmania	1,060	1,060	1,060	1,060	1,060
Australia	**389,477**	**444,719**	**467,202**	**557,449**	**655,633**

(*a*) Includes terminals, sub-terminals, country installations, and temporary storage. (*b*) Storage at beginning of season. (*c*) Includes storage in southern New South Wales operated by the Victorian Grain Elevators Board. (*d*) Includes current contracts.

Particulars of the operation of the bulk handling and storage systems in each State are set out on pages 916 and 917 of Year Book No. 48.

International Wheat Agreement

Details of the first and second International Wheat Agreements operative from 1 August 1949 to 31 July 1953, and from 1 August 1953 to 31 July 1956, respectively, were published in Year Book No. 42 (*see* pages 840–1) or previous issues. Details of the third, fourth and fifth International Wheat Agreements which covered the periods from 1 August 1956 to 31 July 1959, 1 August 1959 to 31 July 1962 and 1 August 1962 to 31 July 1968 were published in Year Books 43 (page 836), 48 (page 906) and 55 (page 836) respectively.

International Grains Arrangement

In August 1967 agreement was reached on a new International Grains Arrangement to operate for a period of three years from 1 July 1968. Details of the Arrangement were published in Year Book No. 55 (*see* page 836).

Research into the wheat industry

Details of research into the Wheat Industry were published in Year Book No. 55 and previous issues. To the end of June 1969, the Wheat Industry Research Council (set up by the Commonwealth Government) and the Wheat Industry Research Committees (set up in the wheat-growing States) had spent $13,128,000 including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, universities and agricultural colleges.

Wheat farms: number and classification by activity

Particulars of the number of farms growing twenty acres and upwards of wheat for grain during each of the years 1964–65 to 1968–69 are shown in the following table. A farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING TWENTY ACRES AND UPWARDS OF WHEAT FOR GRAIN: STATES AND A.C.T., 1964-65 TO 1968-69

State or Territory	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales	18,537	16,150	19,575	20,619	21,340
Victoria	11,981	11,355	11,202	11,056	11,686
Queensland	5,236	4,941	5,674	5,867	6,063
South Australia	9,657	9,387	9,419	8,905	9,884
Western Australia	8,779	9,044	8,897	8,746	8,964
Tasmania	255	213	194	159	239
Australian Capital Territory	20	13	25	20	27
Australia	**54,465**	**51,103**	**54,986**	**55,372**	**58,203**

There is in Australia a widespread combination of wheat growing with other rural activities. This is illustrated, for all States and for Australia, in respect of the 1965–66 season, in a series of statistical bulletins: *Classification of Rural Holdings by Size and Type of Activity*, 1965–66, Nos 1 to 7. These publications also contain details of numbers of rural holdings classified according to area of wheat for grain.

Varieties of wheat sown

The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845–1905) did invaluable work in pioneering this field, and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown in any one season is restricted to about forty-five.

The principal varieties of wheat sown and the percentage of each to the total area sown in the five main wheat-producing States of Australia in 1968–69 were as follows: New South Wales, Heron (27.7), Gamut (10.5), Falcon (10.0), Olympic (10.0); Victoria, Insignia (48.2), Olympic (20.2), Pinnacle (12.6); Queensland, Mendos (38.7), Gamut (21.6), Spica (11.9), Timgalen (10.1); South Australia, Heron (34.3), Insignia (including Insignia 49) (27.5); and Western Australia, Gamenya (45.2), Falcon (15.3), Insignia (11.1). A detailed table of wheat varieties sown appears in the annual bulletin *The Wheat Industry* (*see* No. 116, published in March 1970).

Wheat area, production and yield per acre

Prominent factors in the early development of the wheat industry were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND AUSTRALIAN CAPITAL TERRITORY, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
AREA ('000 ACRES)								
1964–65	5,760	3,236	1,026	2,727	5,151	17	2	17,919
1965–66	4,577	3,074	954	2,745	6,150	14	1	17,515
1966–67	7,135	3,138	1,227	2,960	6,347	13	3	20,823
1967–68	8,215	3,224	1,477	2,864	6,647	12	2	22,441
1968–69	9,962	3,984	1,789	3,748	7,295	17	4	26,799
PRODUCTION ('000 BUSHELS)(*a*)								
1964–65	151,483	78,166	22,830	52,817	63,071	364	58	368,789
1965–66	39,117	60,591	17,429	39,976	102,156	368	28	259,666
1966–67	202,501	70,896	35,730	53,816	103,195	385	87	466,610
1967–68	87,323	28,317	27,417	26,899	106,975	316	42	277,289
1968–69	215,119	90,728	42,000	83,160	112,450	410	84	543,950
YIELD PER ACRE (BUSHELS)(*a*)								
1964–65	26.3	24.2	22.3	19.4	12.2	21.7	27.6	20.6
1965–66	8.5	19.7	18.3	14.6	16.6	26.1	20.8	14.8
1966–67	28.4	22.6	29.1	18.2	16.3	30.2	32.5	22.4
1967–68	10.6	8.8	18.6	9.4	16.1	26.3	17.8	12.4
1968–69	21.6	22.8	23.5	22.2	15.4	23.6	20.1	20.3

(*a*) 60 lb per bushel.

A graph showing the area sown to wheat for grain in Australia since 1900–01 appears on plate 38 of this Year Book, and a map showing the distribution of areas growing wheat for grain throughout Australia in 1962–63 appears on page 1013 of Year Book No. 50. Similar maps showing the distribution of wheat areas in 1924–25, 1938–39, 1947–48, and 1954–55 appeared respectively in Year Books No. 22, page 695, No. 34, page 451, No. 39, pages 977–8, and No. 43, page 833.

The size of the wheat harvest in Australia is determined largely by the nature of the season, resulting in considerable year-to-year fluctuations in production. The main wheat-producing States of Australia are New South Wales, Western Australia and Victoria. Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits.

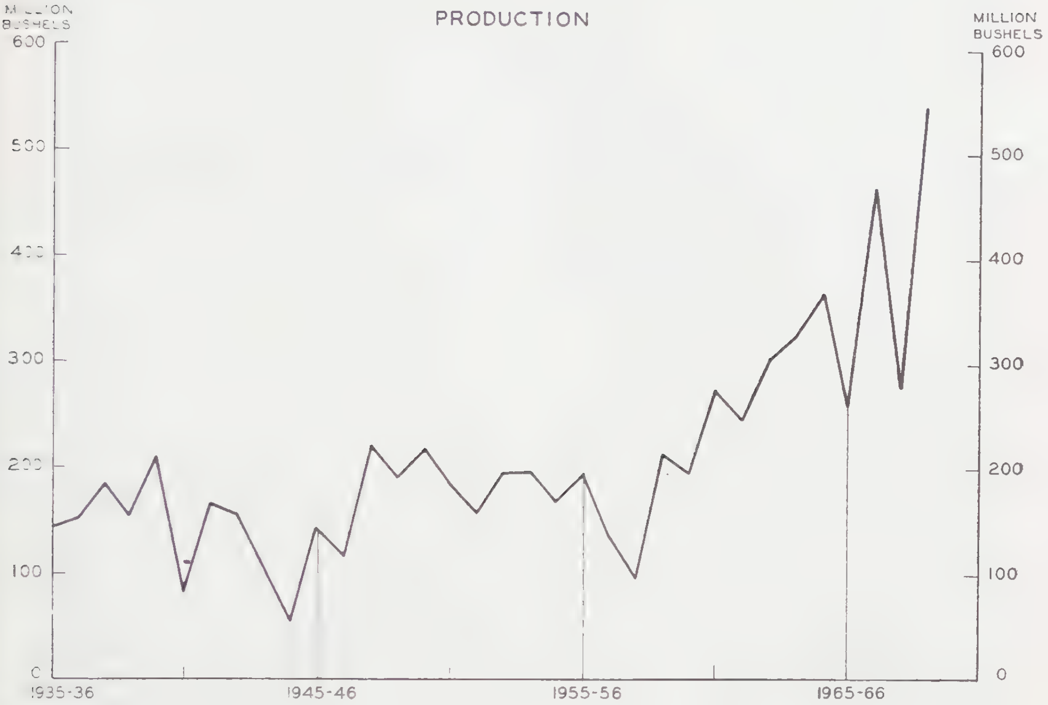
The area and production of wheat for grain in the 1968–69 season were at record levels. The area sown was 19 per cent above the previous record area sown in 1967–68. Production was 17 per cent greater than the previous record crop of 1966–67.

Price of wheat

The prices charged, per bushel, by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed were as follows: year ended 30 November 1966, $1.53; 1967, $1.57; 1968, $1.66; 1969, $1.71; and 1970, $1.725 for wheat to millers and $1.50 for wheat sold for stock feed. These prices include a loading to meet freight charges incurred on wheat shipped to Tasmania (1.66 cents in 1966; 1.50 cents in 1967 and 1968; 1.0 cents in 1969; and 1.6 cents in 1970).

WHEAT FOR GRAIN: AUSTRALIA

1935-36 to 1968-69



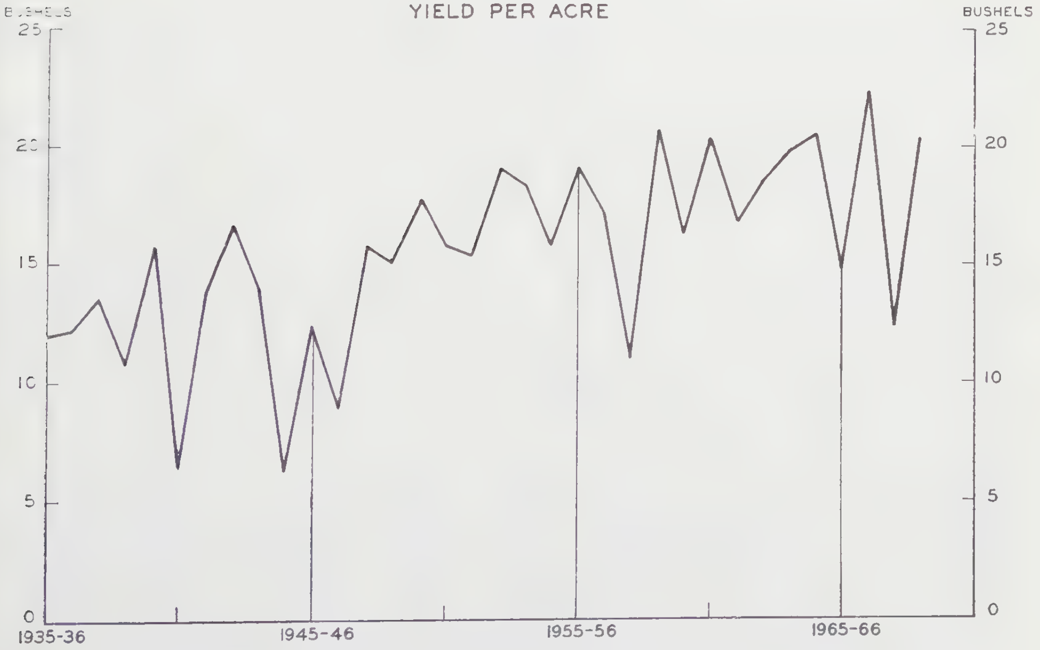


PLATE 39

The Wheat Board's monthly basic export selling prices for f.a.q. bulk wheat f.o.b. basis, both for wheat sold under the International Wheat Agreement and for 'free' wheat sold on the open market, fell in the following ranges; season ended 30 June 1966, $1.38 to $1.48; 1967, $1.51 to $1.60; 1968, $1.41 to $1.49; 1969, $1.38 to $1.43.

The 1962 International Wheat Agreement, operative from 1 August 1962 to 31 July 1967, set the maximum price at $US2.025 a bushel and the minimum at $US1.625 for f.a.q. wheat sold under the Agreement. Under the new International Grains Arrangement, which is operative from 1 July 1968, provision has been made for minimum and maximum prices for fourteen types of wheat, the basic wheat being United States Hard Red Winter No. 2 Ordinary Protein, the minimum price for which has been fixed at $US1.73 per bushel. The minimum price per bushel for No. 1 Manitoba Northern Wheat is now $US1.955 and for Australian f.a.q. wheat $US1.68 (*see* Year Book No. 55, page 836 for a description of the International Grains Arrangement).

Details of export prices of wheat in earlier years, including those received for wheat sold under the terms of the 1949–1953 International Wheat Agreement, are given in Year Book No. 40, pages 849–50, and in the statistical bulletin *The Wheat Industry, Australia*, No. 99, March 1961, and in previous issues of these publications.

Value of the wheat crop

The estimated gross value of the wheat crop in each State and in Australia during the season 1968–69 and the value per acre are shown below.

WHEAT FOR GRAIN: VALUE OF CROP(*a*), STATES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*(*b*)
Aggregate value .	$'000	289,061	122,008	55,827	112,551	151,306	467	731,334
Value per acre .	$	29.02	30.62	31.21	30.03	20.74	26.85	27.29

(*a*) Gross value of total crop, including wheat used for seed and for stock feed on farms. Also includes payment of $24,172,000 by the Commonwealth Government. (*b*) Includes the Australian Capital Territory.

Production and disposal of wheat in Australia

In the following tables details are given of Australian Wheat Board transactions and of total production and disposal of wheat during each of the years ended 30 November 1965 to 1969.

AUSTRALIAN WHEAT BOARD
WHEAT RECEIVED, STATES, 1964-65 TO 1968-69 HARVESTS
('000 bushels)

Pool	*Harvest*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
28 . .	1964–65	137,494	80,685	20,712	49,991	57,440	188	346,511
29 . .	1965–66	27,558	60,923	13,701	36,160	95,837	217	234,396
30 . .	1966–67	184,643	74,619	32,884	50,007	96,823	247	439,224
67–68 . .	1967–68	73,006	27,819	24,367	22,084	99,940	154	247,370
68–69 . .	1968–69	196,828	94,672	38,781	79,447	105,679	210	515,617

Stocks of wheat (including flour in terms of wheat) held by the Australian Wheat Board in each State at 30 November for the years 1965 to 1969 are shown in the following table. These data relate to stocks held at mills, sidings, ports, and depots as recorded by the Australian Wheat Board.

AUSTRALIAN WHEAT BOARD: STOCKS(*a*) OF WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT), STATES, 30 NOVEMBER 1965 TO 1969
('000 bushels)(*b*)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
1965	15,265	3,716	862	2,602	1,556	382	24,383
1966	3,406	6,020	343	2,623	3,626	529	16,547
1967	43,238	22,709	596	8,160	5,285	536	80,524
1968	10,148	13,298	688	6,791	20,580	353	51,858
1969	84,834	61,793	6,785	46,097	66,502	572	266,582

(*a*) Held at mills, sidings, ports and depots. Excludes new season's wheat received from growers prior to 30 November of years shown. (*b*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat.

Particulars of the disposal of wheat during the years ended 30 November 1965 to 1969 are shown in the following table.

WHEAT: PRODUCTION AND DISPOSAL, AUSTRALIA, 1965 TO 1969
(million bushels)(*a*)

	Year ended 30 November—				
	1965	*1966*	*1967*	*1968*	*1969*
Opening stocks (including flour) (*b*)(*c*)(*d*)	20.4	24.4	16.5	80.5	51.9
Production	368.8	259.7	466.6	277.3	544.0
Total available supplies	*389.2*	*284.1*	*483.1*	*357.8*	*595.9*
Exports—					
Wheat	244.5	163.5	293.1	187.7	219.0
Flour(*b*)	23.8	16.2	19.7	19.1	15.0
Breakfast foods and other products(*b*)(*d*)	0.7	0.7	0.9	1.0	1.9
Local consumption—					
Flour(*b*)(*d*)	44.2	44.2	43.8	45.0	44.5
Breakfast foods and other products(*b*)(*d*)	1.9	2.4	1.8	2.4	1.7
Stock feed wheat sales(*d*)	28.7	20.3	15.6	22.6	9.8
Seed	16.3	19.1	20.9	24.5	21.7
Retained on farm (excluding seed)	6.0	6.2	6.5	5.4	6.9
Closing stocks (including flour)(*b*)(*c*)(*d*)	24.4	16.5	80.5	51.9	266.6
Total disposals	*390.5*	*288.7*	*483.2*	*359.6*	*587.1*
Excess (+) or deficiency (−) of disposals in relation to available supplies(*e*)	+1.3	+4.6	+0.1	+1.8	−8.8

(*a*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat. (*b*) In terms of wheat. (*c*) Held at ports, depots, mills, and sidings. (*d*) *Source;* Australian Wheat Board. (*e*) Includes allowance for unrecorded movements in stocks, gain or loss in out-turn, etc. and in differences related to the timing of official export statistics.

The *Wheat Industry Stabilization Act* 1948 empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. These provisions have been continued in the subsequent legislation, with the exception that advances are now arranged through the Reserve Bank.

AUSTRALIAN WHEAT BOARD: FINANCIAL OPERATIONS, 1964-65 TO 1968-69
($'000)

	No. 28 Pool	*No. 29 Pool(a)*	*No. 30 Pool(a)*	*No. 67/68 Pool(a)*	*No. 68/69 Pool(a)*
	(1964–65 Harvest)	*(1965–66 Harvest)*	*(1966–67 Harvest)*	*(1967–68 Harvest)*	*(1968–69 Harvest)*
Paid to growers	409,337	294,886	535,698	319,261	476,219
Rail freight	57,765	34,605	76,538	42,009	90,516
Expenses	21,298	20,471	31,121	32,130	58,126
Total payments	*488,400*	*349,962*	*643,357*	*393,400*	*624,861*
Value of sales delivered	(*b*)471,052	(*c*)334,645	(*d*)635,429	(*e*)354,898	(*f*)686,361

(*a*) Incomplete. (*b*) Subject to additional $18,069,000 provided by the Commonwealth Government and payment of $722,000 to Wheat Industry Research Fund. (*c*) Subject to additional $16,154,000 provided by the Commonwealth Government and payment of $586,000 to Wheat Industry Research Fund. (*d*) Subject to additional $15,508,000 provided by the Commonwealth Government and payment of $1,097,000 to Wheat Industry Research Fund. (*e*) Subject to an estimated additional $42,870,000 to be provided by the Commonwealth Government and payment of $618,000 to Wheat Industry Research Fund. (*f*) Subject to an estimated additional $24,172,000 to be provided by the Commonwealth Government and payment of $1,287,000 to Wheat Industry Research Fund.

Details of earlier pools will be found in previous issues of the Year Book.

Imports of wheat

Wheat and flour have been imported in substantial quantities on three occasions since 1900; in 1902–3 the wheat harvest was only 12,378,000 bushels, and wheat and flour equivalent to 12,468,000 bushels of wheat were imported. An equivalent of 7,279,000 bushels was imported in 1914–15 to supplement the yield of 25 million bushels produced in that season. Owing to drought conditions in 1957–58 supplies of high protein wheat were insufficient for local requirements and, as a result, 1,485,000 bushels were imported from Canada in 1958. No wheat has since been imported.

Exports of wheat and flour

Statistics in the following three tables are for years ended 30 June and relate to the exports of *Australian produce* only.

WHEAT AND FLOUR: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69

	Quantity				*Value*		
		Flour(a)					
Year	*Wheat*	*As flour*	*In terms of wheat(b)*	*Total (in terms of wheat)*	*Wheat*	*Flour(a)*	*Total*
	'000 bushels	short tons	'000 bushels	'000 bushels	$'000 f.o.b.	$'000 f.o.b.	$'000 f.o.b.
1964–65	209,980	598,037	27,689	237,669	297,199	39,122	336,321
1965–66	189,479	416,201	19,270	208,749	264,062	26,526	290,588
1966–67	239,051	379,352	17,564	256,615	361,227	24,600	385,827
1967–68	238,778	406,847	18,837	257,613	342,767	25,303	368,070
1968–69	179,707	379,267	17,560	197,267	258,334	23,822	282,156

(*a*) White flour (plain and self-raising), sharps and wheatmeal for baking. (*b*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat.

WHEAT: EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA, 1964-65 TO 1968-69

('000 bushels)

Country to which exported	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Chile	. .	. .	1,725	6,271	3,849
China (mainland)	83,623	74,131	79,523	88,781	43,431
Japan	16,276	13,357	15,851	22,484	42,149
Korea (North)	1,663	3,737	3,952	1,466	3,491
Lebanon	2,725	1,157	5,130	3,497	3,167
Malaysia	(*a*)3,669	(*a*)3,758	9,244	9,374	9,299
Netherlands	. .	. .	4,406	4,479	5,935
Norway	2,830	702	4,142	2,728	3,195
Peru	. .	. .	848	3,041	5,668
Rhodesia	1,497	2,300	1,971	2,948	2,864
Singapore	(*b*)	(*b*)4,479	7,403	9,297	3,924
United Kingdom	19,132	23,293	14,233	23,622	28,412
Other(*c*)	78,565	62,565	90,623	60,790	24,323
Total	**209,980**	**189,479**	**239,051**	**238,778**	**179,707**

(*a*) Includes Singapore from 1 July 1964 to 30 September 1965. (*b*) Included in Malaysia from 1 July 1964 to 30 September 1965. (*c*) Includes particulars of shipments made 'for orders' which could not be classified to countries.

The following table shows the exports of flour to various countries for each of the years 1964–65 to 1968–69. The figures relate to exports of white flour (plain and self-raising), sharps and wheatmeal for baking.

FLOUR(*a*): EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA, 1964-65 TO 1968-69
(Short tons)

Country to which exported	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Ceylon	191,144	170,083	144,982	160,620	143,005
Fiji	34,915	34,219	24,642	33,735	35,323
Guyana	2,381	2,463	2,171	7,378	5,925
Indonesia	9,124	3,086	24,766	65,564	58,595
Libya	629	487	1,504	1,036	8,488
Malawi	8,360	6,192	7,413	10,483	6,464
Mauritius	19,847	11,817	12,147	17,372	17,004
Papua and New Guinea	13,871	14,889	16,139	17,804	18,158
Saudi Arabia	15,822	16,692	12,111	17,183	15,019
South Yemen	44,990	29,968	25,272	9,958	8.081
Trucial States	10,965	8,114	8,489	12,207	10,840
United Kingdom	45,579	33,075	19,411	11,090	9,156
Other(*b*)	200,410	85,116	80,305	42,417	43,209
Total	**598,037**	**416,201**	**379,352**	**406,847**	**379,267**

(*a*) One short ton (2,000 lb) of flour is taken as being equivalent to 46.3 bushels of wheat. (*b*) Includes particulars of shipments made 'for orders' which could not be classified to countries.

World area and production of wheat

The figures in the following table of the world area and production of wheat by principal countries and by continents have been compiled from statistics published by the International Wheat Council. Harvests in the northern hemisphere occur in the first of the two years mentioned in each column heading, and in the southern hemisphere at the end of that year and the beginning of the next. Harvests of the northern hemisphere countries are thus combined with those of the southern hemisphere which immediately follow; e.g. in 1968–69 the Canadian harvest occurred from August to September 1968 and the Australian harvest from October 1968 to February 1969.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES 1966-67 TO 1968-69
(*Source for countries other than Australia:* International Wheat Council—*World Wheat Statistics*)

	Area			*Production*			*Yield per acre*		
Continent and country	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
	'000 acres	'000 acres	'000 acres	mill. bus	mill. bus	mill. bus	bus	bus	bus
Africa	18,978	19,768	21,535	193	225	294	10.2	11.3	13.6
sia—									
China (mainland)(*b*)	60,500	60,500	61,776	764	845	772	12.6	14.0	12.5
India	31,273	31,723	37,061	383	419	608	12.2	13.2	16.4
Pakistan	12,874	13,385	14,977	145	161	238	11.3	12.0	15.9
Turkey	19,938	20,046	20,270	357	372	353	17.9	18.5	17.4
Total, Asia(a)	*151,100*	*156,278*	*164,003*	*2,033*	*2,244*	*2,429*	*13.5*	*14.4*	*14.8*
Europe—									
France	9,864	9,709	10,107	415	525	551	42.1	54.1	54.5
Germany, Federal Republic of	3,432	3,494	3,618	167	214	228	48.5	61.2	63.0
Italy	10,561	9,914	10,576	345	353	355	33.7	35.6	33.5
Spain	10,356	10,534	9,761	179	208	195	19.3	19.7	20.0
Total Europe(a)	*69,103*	*68,996*	*70,264*	*2,303*	*2,660*	*2,660*	*33.3*	*38.6*	*37.9*
North and Central America—									
Canada	29,692	30,121	29,422	827	593	650	27.9	19.7	22.1
United States	49,867	58,771	55,262	1,312	1,522	1,576	26.3	25.9	28.5
Total North and Central America(a)	*81,345*	*91,009*	*86,610*	*2,196*	*2,194*	*2,293*	*27.0*	*24.1*	*26.5*
Oceania—									
Australia	20,823	22,441	26,799	467	277	544	22.4	12.4	20.3
Total, Oceania(a)	*21,043*	*22,745*	*27,113*	*478*	*293*	*560*	*22.7*	*12.9*	*20.7*
South America—									
Argentine	12,884	14,362	14,423	230	269	211	17.8	18.7	14.6
Total, South America(a)	*17,717*	*18,903*	*20,386*	*311*	*348*	*311*	*17.5*	*18.4*	*15.3*
U.S.S.R. (Europe and Asia)	172,866	165,624	166,128	3,693	2,840	3,432	21.4	17.1	20.7
World total(*a*)	**532,152**	**543,323**	**556,039**	**11,207**	**10,804**	**11,978**	**21.1**	**19.9**	**21.5**

(*a*) Includes allowances for any missing data for countries shown and for other producing countries not sh
(*b*) International Wheat Council estimate.

Principal wheat exporting and importing countries

The following table shows world exports of wheat and wheat flour (in terms of wheat) by the major wheat exporting countries, according to continents and countries of primary destination, based on statistics recently published by the International Wheat Council. While Australia's production of wheat has averaged about three per cent of the world's total during recent years, its exports account for a much higher proportion of the total quantities shipped. For the three years ended 1968–69 Australia's share of the world wheat exports has averaged 12 per cent.

WORLD EXPORTS OF WHEAT AND WHEAT FLOUR IN TERMS OF WHEAT 1964-65 TO 1968-69

(*Source:* International Wheat Council—*World Wheat Statistics*)

(Million bushels)

Year and country of primary destination	*Exporting country*							
	Argentina	*Australia*	*Canada*	*E.F.C.*	*U.S.A.*	*U.S.S.R.*	*Other*	*Total*
1968–69p—								
Africa(*a*)—								
United Arab Republic	..	..	0.8	35.5	0.3	7.0	27.9	71.5
Other	0.9	7.2	7.5	33.6	30.8	0.9	9.8	90.7
Total, Africa	*0.9*	*7.2*	*8.3*	*69.1*	*31.1*	*7.9*	*37.7*	*162.2*
Asia(*a*)—								
China (mainland)	..	43.4	78.2	9.3	..	..	..	130.9
India	4.4	3.2	26.7	..	85.1	..	..	119.5
Japan	0.7	42.1	45.8	0.9	67.6	..	1.8	158.9
Korea, South	..	0.4	..	..	55.3	..	..	55.6
Other	0.9	45.6	10.4	26.0	116.1	22.0	10.7	231.7
Total, Asia	*6.0*	*134.7*	*161.1*	*36.2*	*324.0*	*22.0*	*12.5*	*696.6*
Europe(*a*)—								
Czechoslovakia	..	..	..	..	..	34.2	..	34.2
Germany, East	..	..	..	..	..	40.3	0.1	40.4
Germany, Federal Republic of	..	..	13.2	..	11.9	3.1	6.5	34.7
Italy	15.9	..	13.6	..	16.5	1.5	2.2	49.6
Netherlands	3.3	8.1	6.7	..	22.9	4.8	0.3	46.0
Poland	..	..	6.7	..	0.5	35.2	..	42.4
United Kingdom	4.8	29.1	58.3	31.8	4.5	11.7	26.2	166.4
Other	3.3	4.1	24.6	22.9	27.4	21.1	11.4	114.9
Total, Europe	*27.3*	*41.3*	*122.9*	*54.7*	*83.7*	*152.0*	*46.7*	*528.6*
North and Central America	..	0.1	18.7	4.8	19.7	10.4	0.7	54.4
Oceania	..	2.3	..	..	0.1	..	0.1	2.6
South America—								
Brazil	44.7	..	..	..	29.7	6.0	10.3	90.6
Other	23.4	10.6	3.2	0.6	51.5	..	3.3	92.6
Total, South America	*68.1*	*10.6*	*3.2*	*0.6*	*81.2*	*6.0*	*13.6*	*183.3*
U.S.S.R.	..	..	5.4	..	..	..	..	5.4
All other	..	..	..	3.6	..	..	..	3.6
World total, 1968-69	**102.3**	**196.2**	**319.6**	**169.0**	**539.8**	**198.3**	**111.4**	**1,636.7**
1967–68	50.3	257.6	327.1	206.1	742.1	186.8	143.6	1,913.7
1966–67	112.4	256.6	545.0	174.4	734.1	151.6	88.4	2,062.5
1965–66	292.0	208.7	545.0	230.2	859.7	80.9	79.4	2,296.0
1964–65	163.3	237.7	437.6	222.7	720.4	42.6	57.0	1,881.2

(*a*) Excludes U.S.S.R., details for which are shown separately.

The above particulars are based on customs clearances of the exporting countries, and relate to years ended 30 June. There are small differences between Australian exports as shown and those on pages 770–1 due in part to the use by the International Wheat Council of a slightly different factor to convert flour to wheat equivalent.

Oats

This cereal is widely grown in all agricultural areas which have autumn, winter and spring rainfall; it is tolerant of wet conditions and heavy soils. It has excellent feed value and produces a higher yielding crop than other winter cereals. It needs less cultivation, but requires ample fertiliser. Oats has a variety of uses—as a pasture plant when rough sown into stubble or heavy clover pastures, as silage if cut before maturity, as a hay crop when mown and baled or cut for chaff, or as a grain when stripped (the stubble then being grazed off). The grain is sold on a 'fair average quality' basis through voluntary pools in Victoria, South Australia and Western Australia.

Oats area, production and yield per acre

Oats is usually next in importance to wheat among the grain crops cultivated in Australia. However, while wheat grown for grain in 1968–69 accounted for 57 per cent of the area of all crops, oats grown for grain represented only 8 per cent.

OATS FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND AUSTRALIAN CAPITAL TERRITORY, 1964-65 TO 1968-69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
AREA ('000 ACRES)								
1964–65	850	966	55	444	1,152	28	1	3,497
1965–66	1,033	966	45	455	1,240	28	1	3,768
1966–67	1,363	1,079	66	509	1,204	36	2	4,258
1967–68	907	723	31	525	1,158	35	1	3,380
1968–69	1,185	991	55	516	1,092	31	1	3,872
PRODUCTION ('000 BUSHELS)(*a*)								
1964–65	22,885	22,446	1,171	8,977	14,011	520	32	70,043
1965–66	12,607	17,784	735	5,622	23,279	677	37	60,739
1966–67	41,003	31,248	1,467	10,276	22,117	948	47	107,106
1967–68	8,235	6,859	450	3,299	19,759	1,014	12	39,628
1968–69	27,454	30,230	1,119	11,895	22,942	583	27	94,250
YIELD PER ACRE (BUSHELS)(*a*)								
1964–65	26.9	23.2	21.1	20.2	12.2	18.5	21.6	20.0
1965–66	12.2	18.4	16.3	12.4	18.8	23.9	25.6	16.1
1966–67	30.1	29.0	22.1	20.2	18.4	26.4	26.2	25.2
1967–68	9.1	9.5	14.6	6.3	17.1	28.7	20.3	11.7
1968–69	23.2	30.5	20.3	23.1	21.0	18.5	22.4	24.3

(*a*) 40 lb per bushel.

Graphs showing the area sown to oats and production of oats in Australia appear on pages 993 and 995 of Year Book No. 49, and a map showing the distribution of areas growing oats for grain throughout Australia in 1962–63 appears on page 1015 of Year Book No. 50. The area sown to oats from 1900–01 is shown in plate 38, page 758 and the production of oats from 1935–36 is shown in plate 40, page 777.

Production of oats in 1968–69, 94,250,000 bushels was 12 per cent below the record production in 1966–67. Yield per acre was 24.3 bushels, compared with the record yield per acre of 25.2 bushels in 1966–67.

Value of oat crop

The average wholesale price in the Melbourne market for oats of good milling quality was $0.72 per bushel in 1968–69, compared with $1.13 in 1967–68. The estimated gross value of the oat crop in each State for the 1968–69 season and the value per acre were as follows.

OATS FOR GRAIN: VALUE OF CROP, STATES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*(*a*)
Aggregate value	$'000	25,532	13,029	1,007	5,686	12,978	505	58,763
Value per acre	$	21.55	13.14	18.30	11.03	11.88	16.07	15.18

(*a*) Includes the Australian Capital Territory.

Exports of oats

OATS: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Quantity . . .	'000 bus	20,161	13,825	22,134	10,033	18,373
Value . . .	$'000 f.o.b.	15,616	11,980	17,450	8,408	13,042

In 1968–69 the principal countries of destination were the Federal Republic of Germany (4,768,000 bushels), the Netherlands (4,597,000 bushels), Japan (3,401,000 bushels), the United Kingdom (2,164,000 bushels) and Italy (2,141,000 bushels).

World production of oats

The world production of oats for the year 1968, according to figures issued by the United States Department of Agriculture, amounted to 3,493 million bushels, harvested from 76.3 million acres, resulting in an average yield of 45.8 bushels an acre. This compared with an estimated production in the previous year of 3,255 million bushels from an area of 74.2 million acres and an average yield of 43.9 bushels an acre.

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley was formerly stubble-sown, but is now grown principally on pasture land worked up early in the year of sowing. In this way it forms an important phase in the rotation of crops. Like oats, it may also be sown for fodder production or for grain. When sown for fodder, sowing may take place either early of late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock (especially pigs) or sold for malting.

Crops sown for malting purposes require well-worked, weed-free paddocks of even soil, and are thus restricted to specific districts. The main barley-growing areas in Australia are situated in South Australia (Murray-Mallee, Eyre and Yorke Peninsulas), but considerable quantities are grown also in New South Wales, Victoria, Queensland and Western Australia.

Barley Boards

The bulk of the barley crop in the various States is acquired and marketed by grower-controlled boards. Pooled returns from sales are distributed to growers at standard rates for the individual grades and varieties delivered. The Victorian and South Australian crops are marketed by the Australian Barley Board (a joint board established by the two State Governments), and the Queensland and Western Australian Barley Boards handle the crops of their respective States. Particulars of the proportion of barley production which was received by the Australian Barley Board (for Victoria and South Australia), together with details of quantity sold, advances and total payments to growers, are presented below. As the proportion of bagged barley to total receivals has been falling in recent years (14 per cent of Pool No. 30 as compared to 85 per cent of Pool No. 26) the following table shows details of advances made per bushel of bulk barley and not bagged as in previous issues.

AUSTRALIAN BARLEY BOARD: BARLEY RECEIVED, SOLD, ETC.
1964-65 TO 1968-69

Pool	*Quantity received*	*Quantity sold(a)*	*Total advances per bushels(b)*	*Net payments to growers*
	'000 bushels	'000 bushels	$	$'000
No. 26 (1964–65 Crop) . .	25,465	25,404	1.1292	25,184
„ 27 (1965–66 „) . .	14,922	14,894	1.1993	14,824
„ 28 (1966–67 „) . .	22,043	22,026	1.1940	22,759
„ 29 (1967–68 „) . .	7,985	7,975	1.1912	7,511
„ 30 (1968–69 „) . .	27,280	27,251	0.9200	(c)20,433

(a) Includes surplus or shortage in out-turn except for No. 30 Pool for which the sales are not yet complete. (b) 2-row No. 1 Grade (bulk) less freight. (c) As at 30 June 1970. At that date it was estimated that the amount still to be paid to growers was 4.881 cents per bushel.

Barley area, production and yield per acre

There was a substantial increase in the area of barley sown for grain (particularly in Western Australia and Queensland) in the years up to 1960–61, and in that year the area sown reached the then record level of 2,830,000 acres. However, the area sown in 1968–69, 3,314,000 acres, was 17 per cent more than the area in 1960–61. The production of barley for grain in 1968–69, 72,588,000 bushels, was a record and was 7 per cent more than the previous record production of 67,970,000 bushels in 1960–61. The area, production and yield per acre of barley for grain in the several States for the years 1964–65 to 1968–69, are shown in the following table. Separate details for 2-row and 6-row varieties are shown for all States for 1968–69. The area sown to barley from 1900–01 is shown in plate 38, page 758 and the production of barley from 1935–36 is shown in plate 40, page 777.

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND AUSTRALIAN CAPITAL TERRITORY, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
AREA ('000 ACRES)								
1964–65	239	187	225	1,095	303	15	..	2,064
1965–66	236	192	338	1,098	413	20	..	2,298
1966–67	385	228	384	1,107	373	21	..	2,498
1967–68	367	305	342	1,157	416	24	..	2,611
1968–69—								
2-row	291	387	385	1,333	198	25	..	2,620
6-row	195	22	42	79	355	1	..	694
Total	*486*	*409*	*427*	*1,412*	*553*	*26*	..	*3,314*
PRODUCTION ('000 BUSHELS)(*a*)								
1964–65	6,707	4,335	7,111	26,932	3,701	529	..	49,315
1965–66	3,801	3,218	9,137	18,514	6,481	684	..	41,835
1966–67	11,796	5,421	13,194	23,698	6,707	772	..	61,588
1967–68	4,834	2,709	8,965	12,380	7,027	884	..	36,798
1968–69—								
2-row	6,032	8,394	11,812	27,630	3,712	858	..	58,438
6-row	5,179	491	1,058	1,921	5,475	26	..	14,149
Total	*11,212*	*8,885*	*12,869*	*29,551*	*9,187*	*884*	..	*72,588*
YIELD PER ACRE (BUSHELS)(*a*)								
1964–65	28.1	23.2	31.6	24.6	12.2	34.2	..	23.9
1965–66	16.1	16.7	27.0	16.9	15.7	34.4	..	18.2
1966–67	30.6	23.8	34.4	21.4	18.0	36.7	..	24.7
1967–68	13.2	8.9	26.2	10.7	16.9	36.8	..	14.1
1968–69—								
2-row	20.7	21.7	30.7	20.7	18.7	33.9	..	22.3
6-row	26.5	22.5	25.1	24.4	15.4	28.2	..	20.4
Total	*23.1*	*21.7*	*30.1*	*20.9*	*16.6*	*33.7*	..	*21.9*

(*a*) 50 lb per bushel.

For Australia, 79 per cent of the area of barley for grain in 1968–69 was sown with 2-row barley. The proportion, however, varied considerably in the several States. The utilisation of barley during the season ended November 1969 was as follows: exports, 24,189,000 bushels; malting and distilling, 14,000,000 bushels; pearl barley, 119,000 bushels; seed, 4,300,000 bushels.

A graph showing the production of barley in Australia since 1935–36 is shown in plate 40, page 777, and a map showing the distribution of barley growing areas throughout Australia in 1962–63 appears on page 1014 of Year Book No. 50. The area sown to barley from 1900–01 is shown in plate 38, page 758.

Value of barley crop

The average wholesale price for 2-row English malting barley in the Melbourne market was $1.52 per bushel in 1968–69 compared with $1.53 in 1967–68. The estimated gross value of the barley crop in each State for the 1968–69 season and the value per acre are shown in the following table.

BARLEY FOR GRAIN: VALUE OF CROP, STATES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Aggregate value .	$'000	13,479	8,868	12,766	25,657	8,619	1,142	70,531
Value per acre .	$	27.71	21.68	29.90	18.17	15.59	43.56	21.28

Exports of barley

South Australia is the principal exporting State, and China (Taiwan), Italy, Japan and the United Kingdom were the principal countries to which barley was shipped in 1968–69. Particulars of exports of Australian-produced barley for the years 1964–65 to 1968–69 are shown in the following table.

BARLEY: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Quantity	'000 bus	16,281	9,994	18,718	5,701	19,871
Value	$'000 f.o.b.	18,002	11,508	21,569	6,569	18,246

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1968–69 amounting to 77,000 lb, valued at $5,000, the main countries of consignment being Malaysia and Mauritius. Imports of barley into Australia amounted to 66,322,000 lb, valued at $1,757,000 during 1968–69.

Barley malt

Details of the recorded usage of barley and the production of barley malt in the years 1964–65 to 1968–69 are given in the following table.

BARLEY MALT: GRAIN USED AND MALT PRODUCED, AUSTRALIA
1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Barley used . . .	'000 bus(*a*)	11,667	12,883	13,601	13,003	n.a.
Malt produced . .	'000 bus(*b*)	12,127	13,235	14,027	13,547	n.a.

(*a*) 50 lb per bushel. (*b*) 40 lb per bushel.

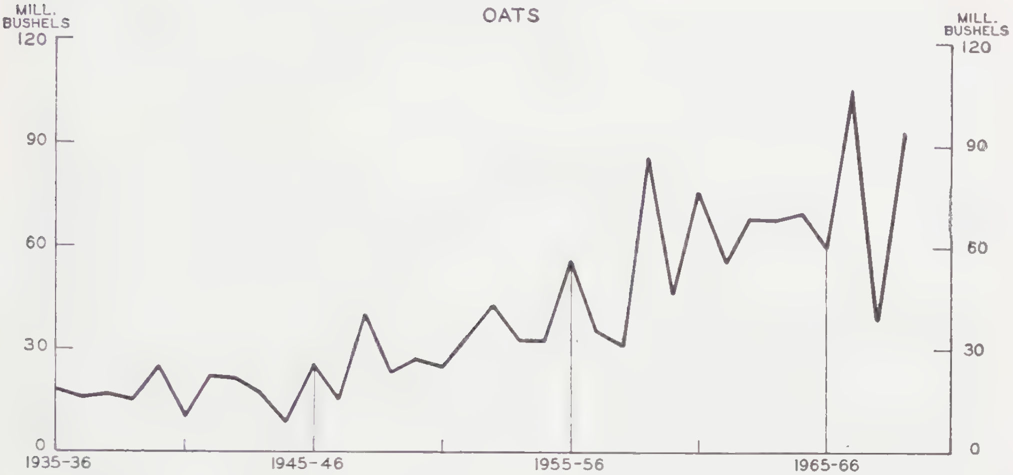
Since 1952–53 the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports of Australian produce amounting to 4,469,000 bushels (value $9,362,000) and 3,971,000 bushels (value $7,268,000) were recorded in 1967–68 and 1968–69 respectively.

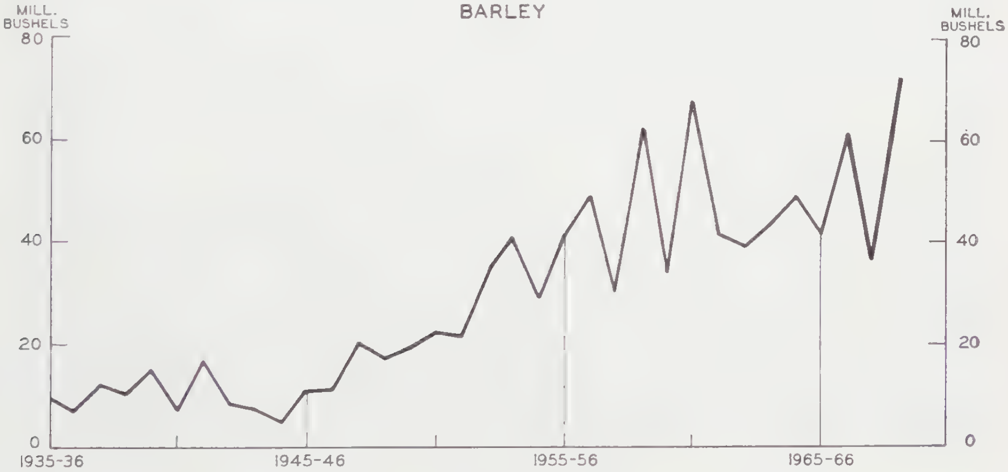
World production of barley

In comparison with the barley production of other countries that of Australia is extremely small. The main producers in 1968 were the Union of Soviet Socialist Republics, the United States of America, France and the United Kingdom. China (Mainland) is also normally a major producer, but details for 1968 are not available. Australian production in that year was approximately 1 per cent of the world total.

PRODUCTION OF OATS, BARLEY AND RAW SUGAR

AUSTRALIA, 1935-36 TO 1968-69





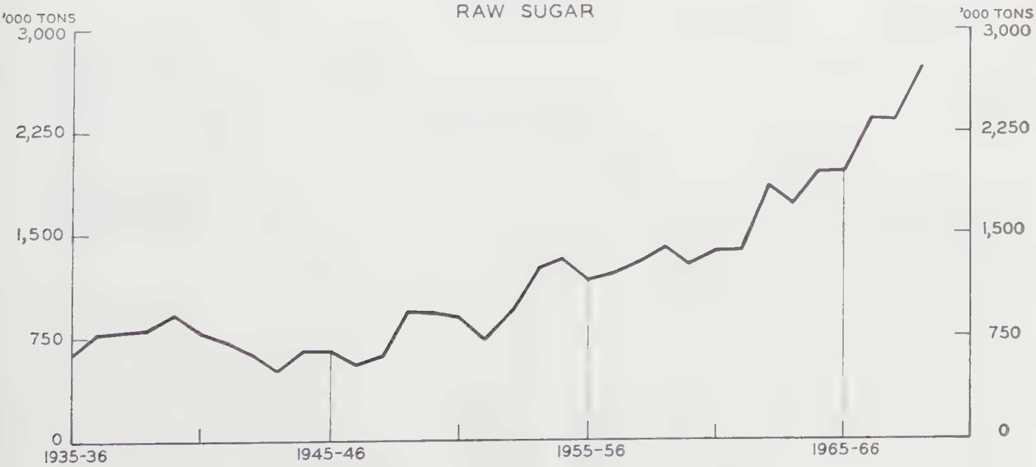


PLATE 40

According to estimates made by the United States Department of Agriculture, world production of barley in the year 1968 amounted to 5,094 million bushels harvested from 165 million acres, equivalent to a yield per acre of 30.9 bushels. This compared with the production of 4,734 million bushels in the previous year from 158.5 million acres, giving a yield per acre of 29.9 bushels.

Sorghum

Grain sorghum is a summer-growing annual palatable to stock and more drought and frost-resistant than maize. It requires a summer rainfall. The growing of this crop for grain on an extensive scale is a comparatively recent development in Australia, and, as with other cereals, operations are highly mechanised.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum, and development has so far been restricted mainly to these areas, more particularly to Queensland. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for this purpose. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet). In Queensland the growing of grain sorghum is concentrated in the Burnett, Dawson-Callide areas and in the central highlands. In New South Wales the north-western slopes and Murrumbidgee Irrigation Areas are the main areas. This crop is also suitable for the semi-tropical areas of the Northern Territory, where development is proceeding, and the Kimberleys.

GRAIN SORGHUM: AREA, PRODUCTION AND YIELD PER ACRE, STATES 1964-65 TO 1968-69

	Area			*Production(a)*			*Yield per acre(a)*		
Year	*N.S.W.*	*Qld*	*Aust.(b)*	*N.S.W.*	*Qld*	*Aust.(b)*	*N.S.W.*	*Qld*	*Aust.(b)*
	acres	acres	acres	'000 bushels	'000 bushels	'000 bushels	bushels	bushels	bushels
1964–65	51,699	292,769	345,737	1,270	5,883	7,164	24.6	20.1	20.7
1965–66	99,576	332,768	433,437	605	6,533	7,149	6.1	19.6	16.5
1966–67	98,161	403,500	502,349	1,527	10,172	11,713	15.6	25.2	23.3
1967–68	78,165	382,192	461,834	1,580	8,939	10,582	20.2	23.4	22.9
1968–69	136,945	436,479	583,409	3,927	11,800	15,831	28.7	27.0	27.1

(*a*) 60 lb per bushel. Production in New South Wales (for years prior to 1968–69) and Queensland harvested from crop sown in previous year. (*b*) Includes small areas sown and quantities produced in other States and Territories. Excludes Northern Territory for 1967–68 and 1968–69.

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. For grain, it is grown almost entirely in the south-east and Atherton Tablelands of Queensland and the north coast and northern tablelands of New South Wales. On the Atherton Tablelands in Queensland, and generally in New South Wales and Victoria, it provides a stock feed for dairy cattle, fat stock and pigs. In times of drought it is used also as a sheep feed. In all States except South Australia, however, this crop is grown to some extent for green fodder and silage, particularly in connection with the dairying industry. There is practically no difference between grain and fodder varieties.

There has been a continuing increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialised industry of growing hybrid strains for seed.

Maize area, production and yield per acre

MAIZE FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND A.C.T., 1964-65 TO 1968-69

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
			AREA (ACRES)					
1964–65	41,660	2,353	168,300	..	10	..	..	212,323
1965–66	42,000	1,683	153,081	..	1	..	..	196,765
1966–67	49,019	1,407	151,010	..	5	..	..	201,441
1967–68	51,569	917	147,732	..	155	..	..	200,373
1968–69	54,484	1,161	120,200	..	39	..	..	175,884
			PRODUCTION ('000 BUSHELS)(*a*)					
1964–65	1,878	114	4,887	..	..	..	..	6,879
1965–66	1,607	101	3,209	..	..	..	..	4,918
1966–67	2,471	72	4,948	..	..	..	..	7,491
1967–68	2,320	32	4,778	..	2	..	..	7,132
1968–69	3,083	72	3,670	..	1	..	..	6,826
			YIELD PER ACRE (BUSHELS)(*a*)					
1964–65	45.1	48.5	29.0	..	15.6	..	..	32.4
1965–66	38.3	60.3	21.0	..	60.0	..	..	25.0
1966–67	50.4	51.3	32.8	..	12.8	..	..	37.2
1967–68	45.0	34.9	32.3	..	11.4	..	..	35.6
1968–69	56.6	62.2	30.5	..	17.0	..	..	38.8

(*a*) 56 lb per bushel. Production in New South Wales (for years prior to 1968–69) and Queensland harvested from crop sown in previous year.

The average yield for Australia for the five-year period ended 1968–69 was 33.7 bushels per acre. Among principal producing countries, the United States of America averaged 78.5 bushels per acre and Brazil 20.1 bushels for 1968.

Value of maize crop

The average wholesale price of maize in the Melbourne market in 1968-69 was $2.83 per bushel compared with $2 14 in 1967–68. The estimated gross value of the crop in each State for the 1968–69 season and the value per acre were as follows.

MAIZE FOR GRAIN: VALUE OF CROP, STATES, 1968-69

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Aggregate value .	$'000	4,778	108	4,846	..	1	..	9,733
Value per acre .	$	87.70	93.02	40.32	..	25.64	..	55.34

Exports of maize

MAIZE: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69

		1964–65	1965–66	1966–67	1967–68	1968–69
Quantity	'000 bus	20	1	80	101	7
Value	$'000 f.o.b.	42	4	114	169	5

Imports of maize into Australia in 1968–69 amounted to 27,000 bushels, valued at $183,000.

World production of maize

According to figures issued by the United States Department of Agriculture, world production of maize in the year 1968 amounted to 9,046 million bushels, harvested from 252 million acres, giving an average yield per acre of 35.9 bushels. This compared with production in the previous year of 9,444 million bushels from 255 million acres, and an average yield of 37.1 bushels per acre.

The United States of America is the most important maize-producing country in the world, and during the three years ended 1968 the area sown to maize in that country averaged 58 million acres or 23 per cent of the world total. During the same period production averaged 4,417 million bushels or 48 per cent of the world total.

Rice

The principal rice-growing areas of the world are confined almost entirely to Asia, although limited quantities are grown in other countries. In Australia rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924–25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Areas until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

Apart from small experimental areas in Queensland, Western Australia and the Northern Territory, rice-growing in Australia is practically confined to the Murrumbidgee Irrigation Areas in New South Wales. The bulk of Australia's exports of rice in 1968–69 was shipped to Papua and New Guinea, and Okinawa. Details relating to area, production, and Australian-produced exports for the years 1964–65 and 1968–69 are shown in the following table.

RICE: AREA, PRODUCTION AND EXPORTS, AUSTRALIA(*a*)
1964-65 TO 1968-69

Year	*No. of holdings growing rice(b)*	*Area*	*Production (Paddy rice)*		*Average yield (paddy) per acre*	*Imports*	*Exports*
			Quantity	*Gross value(c)*			
		acres	'000 bushels (*d*)	$'000	bushels (*d*)	'000 lb	'000 lb
1964–65	1,074	61,617	8,030	8,529	130.3	2,987	142,724
1965–66	1,115	64,398	9,540	10,224	148.1	3,951	142,256
1966–67	1,164	73,724	11,250	12,445	152.6	3,718	198,370
1967–68	1,210	75,957	11,597	12,831	152.7	3,749	224,956
1968–69	1,464	83,267	13,420	14,358	161.2	3,225	245,202

(*a*) For some years particulars of area and production for Western Australia and the Northern Territory are not available for publication, and are excluded. (*b*) Twenty acres or more in area. (*c*) Excludes the value of straw. (*d*) 42 lb per bushel.

Fodder crops

Hay

Because of the comparatively unreliable nature of rainfall in Australian agricultural and pastoral areas, hay as a fodder crop occupies a position of importance. In 1968–69 hay represented 8 per cent of the total area of crops. Up to 1946–47 hay, in terms of area, was second only to wheat for grain, but in more recent years it has been supplanted by green fodder (for feeding-off). Hay is generally considered to include cereal hay, meadow hay and lucerne hay. Cereal crops cut early for hay contain a higher level of protein than those cut late.

In most European countries hay is made almost entirely from meadow pastures, but in Australia a very large proportion is made from cereals and lucerne, the hay being stored loose, in sheaves or baled. Because of its bulk, hay is usually produced for individual or local use, except in times of drought, when large inter-regional transfers may take place. Meadow hay requires greater care in preparation than cereal hay. Baling must be spaced carefully behind mowing to ensure that the bales are dry enough to prevent moulding, but not so dry as to result in excessive leaf loss. The leaves contain the bulk of the protein. Lucerne hay requires similar attention.

HAY: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES 1964-65 TO 1968-69

Season	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
AREA ('000 ACRES)									
1964–65	600	1,306	82	314	305	180	1	3	2,793
1965–66	733	1,150	155	299	291	148	1	4	2,780
1966–67	823	1,558	129	482	295	203	1	4	3,496
1967–68	586	1,165	119	429	318	179	2	2	2,800
1968–69	823	1,847	112	615	341	211	2	4	3,955
PRODUCTION ('000 TONS)									
1964–65	1,040	2,506	167	487	390	364	1	7	4,963
1965–66	978	1,873	282	368	414	257	2	5	4,179
1966–67	1,481	2,982	314	729	417	437	2	9	6,371
1967–68	806	1,556	296	418	421	309	3	3	3,812
1968–69	1,439	3,635	263	985	501	494	5	7	7,330
YIELD PER ACRE (TONS)									
1964–65	1.73	1.92	2.19	1.55	1.28	2.02	1.11	1.99	1.78
1965–66	1.33	1.63	1.83	1.23	1.43	1.74	1.39	1.29	1.50
1966–67	1.80	1.91	2.44	1.51	1.41	2.15	1.63	2.14	1.82
1967–68	1.38	1.34	2.49	0.97	1.32	1.73	1.30	1.19	1.36
1968–69	1.75	1.97	2.35	1.60	1.47	2.35	2.38	1.60	1.85

Plate 38 shows the area under hay since 1900–01 (page 758).

Information regarding areas cut for hay and varieties grown in 1968–69 is given in the following table

HAY: AREA OF VARIOUS KINDS GROWN, STATES AND TERRITORIES 1968-69

(Acres)

State or Territory	*Oaten*	*Lucerne*	*Wheaten*	*Other*	*Total*
New South Wales	155,254	250,268	125,779	291,570	822,871
Victoria	270,785	99,683	41,492	1,435,087	1,847,047
Queensland	12,986	68,278	10,950	19,713	111,927
South Australia	150,296	78,314	52,938	333,333	614,881
Western Australia	106,133	2,400	34,290	198,353	341,176
Tasmania	15,249	2,901	263	192,150	210,563
Northern Territory	. .	(*a*)	. .	2,113	2,113
Australian Capital Territory . .	1,357	1,814	293	921	4,385
Australia	**712,060**	**(*b*)503,658**	**266,005**	**2,473,240**	**3,954,963**

(*a*) Not available for publication; included in 'Other hay'. (*b*) Incomplete; excludes the Northern Territory.

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1968–69 were 18.0 per cent for oaten, 12.7 per cent for lucerne, 6.7 per cent for wheaten, and 62.5 per cent for other hay.

The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1968–69 season.

HAY: VALUE OF CROP, STATES 1968-69

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
Aggregate value	$'000	44,985	79,274	9,547	14,114	10,132	7,850	166,284
Value per acre	$	54.67	42.92	85.30	22.95	29.70	37.28	42.04

(a) Includes $166,000 and $216,000 for the Northern Territory and Australian Capital Territory respectively.

Farm stocks of hay

Particulars of stocks of hay held on farms at 31 March for the years 1965 to 1969 are given in the table below.

STOCKS OF HAY HELD ON FARMS, STATES AND A.C.T., 1965 TO 1969
(Tons)

31 March—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.(a)
1965	1,586,969	2,402,299	145,737	614,451	275,948	414,415	7,606	5,447,425
1966	1,158,481	1,915,693	190,659	444,089	291,528	296,196	5,171	4,301,817
1967	1,888,668	2,175,731	270,470	544,676	249,531	399,891	8,151	5,537,118
1968	1,273,385	1,104,034	241,922	267,677	223,115	297,118	3,594	3,410,845
1969	1,819,874	2,987,848	152,945	723,057	243,836	450,547	4,975	6,383,082

(a) Excludes the Northern Territory, for which particulars are not available.

Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for overseas trade, and consequently does not figure largely among Australian exports. During 1968–69 exports amounting to 3,412 tons, valued at $178,000, were made, principally to Kuwait, Malaysia and Singapore. Imports of hay are not recorded separately, but are considered to be negligible.

Green fodder

Considerable areas are devoted to the growing of green fodder, usually as an adjunct to cereal operations or as a minor crop in irrigation areas. The areas recorded in respect of green fodder include areas of crops cut for feeding to livestock as green fodder or ensilage, together with areas fed off to stock as green forage. Statistics of green fodder exclude areas which may have been sown with the intention of harvesting for grain, but which, owing to adverse conditions, showed no promise of producing grain or even hay and were fed off to livestock. The principal crops cut for green fodder are lucerne and oats, while small quantities of barley, sorghum, wheat, maize, rye, and sugar cane are also used in this way. In 1968–69 the area under green fodder (5,713,886 acres) consisted of oats (2,148,069 acres), lucerne (2,478,293 acres) barley (225,095 acres), sorghum (304,909 acres), wheat (177,190 acres), rye (27,317 acres), maize (21,517 acres), sugar cane (1,086 acres), and other crops (330,410 acres). Particulars concerning the area of green fodder in the several States during each of the years 1964–65 to 1968–69 are given in the following table.

GREEN FODDER: AREA, STATES AND TERRITORIES, 1964-65 TO 1968-69
('000 acres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1964–65	2,397	454	1,111	1,135	446	67	1	1	5,614
1965–66	1,952	526	1,143	1,210	414	78	1	1	5,324
1966–67	2,133	443	1,179	1,169	399	74	..	1	5,399
1967–68	2,326	545	1,337	1,217	414	75	..	1	5,916
1968–69	2,428	352	1,406	1,130	297	99	1	1	5,714

In the 1968–69 season green fodder ranked second to wheat in area of crops throughout Australia. A graph showing the area sown to green fodder appears on plate 38, page 758. The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately $30,000,000 for the 1967–68 season and $33,000,000 for the 1968–69 season.

Ensilage

Ensilage is produced from herbage compacted tightly to exclude air and kept from contact with air and extraneous moisture to avoid moulding. Fermentation results in a dark mass of high protein and lactic acid content. Molasses may be added to hasten fermentation. Ensilage may be stored in pits or stacks or in constructed silos.

The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connection with the design of the silos and the cutting and packing of the ensilage. Information regarding production and farm stocks of ensilage for the years 1964–65 to 1968–69 is given in the following table.

ENSILAGE: PRODUCTION AND FARM STOCKS, STATES AND A.C.T.
1964-65 TO 1968-69
(Tons)

Period	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Production during—								
1964–65 season	182,063	250,997	34,440	78,709	26,798	54,438	400	627,845
1965–66 ,,	139,438	228,439	42,886	48,388	30,225	52,802	120	542,298
1966–67 ,,	312,968	335,244	31,895	65,548	29,135	87,041	406	862,237
1967–68 ,,	134,408	160,771	36,238	22,388	30,322	66,602	40	450,769
1968–69 ,,	208,650	337,360	18,221	91,925	45,469	71,209	98	772,932
Farm stocks at—								
31 March 1965	534,730	206,304	112,596	86,093	24,160	49,668	892	1,014,443
,, ,, 1966	365,995	157,134	73,122	58,038	28,293	43,461	291	726,334
,, ,, 1967	519,371	233,979	77,180	62,262	20,476	68,464	740	982,472
,, ,, 1968	365,488	82,139	79,461	24,749	21,460	54,118	4	627,419
.. ,, 1969	393,838	263,190	68,222	80,892	30,078	66,596	27	902,843

Sugar cane

The growing of sugar cane is restricted to those coastal areas in Queensland and northern New South Wales which have suitable climatic and soil conditions.

The Bureau of Sugar Experiment Stations in Queensland and the Colonial Sugar Refining Company Limited render useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilisers, lime, etc. and by producing and distributing improved varieties of cane. In common with these two organisations, Sugar Research Ltd, of Mackay, undertakes technological research in raw sugar milling practices.

Sugar agreements and marketing arrangements in Australia

In Year Book No. 37, pages 940–1, a summary is given of the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement, which replaced the 1961 agreement (extended by supplementary agreements) is for the period from 1 July 1969 to 30 June 1974 and prescribes prices for sugar equivalent to a retail price of 10.5 cents per lb.

Production of sugar is regulated under the terms of the Agreement. At the mill level control is exerted by means of seasonal 'mill peaks' in respect of Queensland mills and a proportionate allowance for New South Wales mills. The combined total equals the estimated requirements of the domestic and export markets. Farm production is regulated according to the limit on the mill which the farm supplies. Exports are limited by the export quota provisions of the International Sugar Agreement (*see* below).

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and uniform prices paid to mills. Production for 1969–70 is estimated to be 2,178,000 tons 94 net titre, to which New South Wales is expected to contribute approximately 98,000 tons.

International Sugar Agreement

The International Sugar Agreement of 1937 was superseded by the International Sugar Agreements of 1953, 1958 and 1968. Details of the 1937, 1953 and 1958 Agreements were given in Year Books No. 40, pages 881–2, No. 48, page 936 and No. 54, page 892 respectively.

The 1968 International Sugar Agreement came into force on 1 January 1969. The Agreement is for a five year period, but the operation of the Agreement is to be reviewed before the end of the third year. It is possible that such a review will result in modifications to the Agreement to apply in its final two years.

Like its predecessors, the 1968 Agreement is built around a schedule of export quotas governing the net exports of exportation members to the world 'free' market. The Agreement is designed to maintain a balance between total world free market supply and demand by adjustments to the level of quotas in effect of exporting members. Quotas in effect cannot be adjusted downwards below 90 per cent of basic export tonnages except in exceptional circumstances where adjustments down to 85 per cent may be possible.

Quota adjustments under the Agreement must take account of the prices ruling in the world free market. The quota adjustment provisions pivot around a world free market price of U.S. four cents per pound f.o.b. and stowed Caribbean port, in bulk. When the price is below U.S. four cents, the system is designed to provide an upward pressure on prices by quota reductions. When the price is above U.S. four cents, the system is designed to apply a downward pressure on prices by increases in the level of quotas in effect above basic export tonnages.

Under the Agreement, exporters are required to establish and maintain certain levels of minimum stocks which are only to be released to the market when the price rises above U.S. 4.75 cents. If the price rises above U.S. 5.25 cents all quota restraints become inoperative and, if the price rises above U.S. 6.50 cents, exporters are required to supply importer members with certain quantities of sugar at prices not exceeding the commercial equivalent of U.S. 6.50 cents.

If the price is below U.S. 3.50 cents, minimum export quotas in effect are to apply, while at prices below U.S. 3.25 cents, members are obliged to prohibit imports from non-member countries.

Australia has a quota under this Agreement of 1,100,000 metric tons raw value (about 1,040,000 long tons of actual raw sugar) and is obliged to establish a minimum level of uncommitted stocks amounting to 15 per cent of this quantity.

Australian exports of negotiated price sugar to the United Kingdom under the British Commonwealth Sugar Agreement, and to the U.S.A. market, are not controlled by the International Sugar Agreement.

British Commonwealth Sugar Agreement

On 1 January 1953 the British Commonwealth Sugar Agreement became effective. The Agreement is now of indefinite duration but is subject to triennial review, with the next such review to be held in 1971. Under the Agreement Australia has a negotiated price quota of 335,000 tons per annum to the United Kingdom. The negotiated price for the years 1966, 1967 and 1968 of £stg43.10s. per ton of bulk raw sugar, f.o.b. and stowed, has been extended for the three years to 1971.

The Agreement also allows an adjusted overall Agreement quota (which includes the negotiated price quota) of 630,000 tons per annum to Australia. The balance of this quota over the negotiated price quota may be sold to preferential markets on the basis of the world market price plus preference, as part of Australia's export quota under the International Sugar Agreement.

Exports to the United States of America

Australian exports to the U.S.A. are governed by legislation enacted by the U.S.A. in 1965 and covering the period to the end of 1971. These exports are sold on the U.S. domestic raw sugar market, the supplies to which are regulated with a view to ensuring stable and equitable prices, independently of prices ruling elsewhere in the world.

Australian export entitlements to this market vary from year to year but have recently been of the order of 170,000 tons of raw sugar per year.

Fruit Industry Sugar Concession Committee and sugar rebates

The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

Until 15 May 1960 a rebate of $4.40 a ton of refined sugar used in processing approved fruit products was paid to Australian manufacturers, provided they brought fresh fruit at prices not lower than those declared by the Committee as reasonable. This was increased to $10 a ton from 16 May 1960 and to $15 from 1 July 1969.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for the Australian sugar content than the price for which the cheapest imported sugar could be landed duty free in Australia. The Queensland Government is responsible for payment of a similar rebate to exporters of other approved products. Payment of the export sugar rebate in respect of approved fruit products has been made conditional upon satisfactory arrangements having been made for payment for such fruit at not less than the prices (if any) which the Committee has declared to be reasonable.

Under the Sugar Agreement 1969 the Queensland Government contributes to the fund $924,000 annually, reimburses the Committee for the actual expenditure on export sugar rebates, and, pays the Committee an additional sum equal to the amount payable by way of domestic sugar rebate in respect of the products exported. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for research for the purpose of increasing the yield per acre of Australian fruit, or of obtaining information regarding Australian fresh marketable fruits.

Financial assistance to the sugar industry

Under the provisions of the *Sugar Marketing Assistance Agreement Act* 1967 the Commonwealth Government arranged a loan of $19 million, plus interest on a temporary advance of this amount from the Reserve Bank, to assist the returns from No. 1 Pool in the 1966 season, and $3,559,193 for a similar purpose in respect of the 1967 season. The total amount of $23,327,590 so advanced will be repayable over ten years commencing in mid-1970, and will not be subject to interest before then. Thereafter it will incur interest at the rate of five per cent per annum.

Bulk handling of sugar

Bulk handling and mechanised loading and unloading of raw sugar is now in operation throughout the Australian sugar industry, except for the operation of a bagging station specially provided at Townsville to meet the needs of a few overseas customers. Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958, at Townsville in 1959, at Mourilyan in 1960, and at Cairns in 1964. A second storage shed at Bundaberg, a third shed at Mackay and second sheds at Lucinda and Townsville have been opened subsequently to give a total bulk storage capacity of 1,300,000 long tons. The comparatively small New South Wales sugar industry was converted to bulk handling in 1954. Bulk receiving facilities are in operation at all Australian refineries.

Area of sugar cane

A brief outline of the development of the industry was included in earlier issues of the Year Book (*see* No. 38, page 985). The area of sugar cane in Australia for the seasons 1964-65 to 1968-69 are shown in the following table. The areas shown in the table do not include the small acreage cut for green fodder, which in 1968-69 amounted to 1,086 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and 'stand-over' cane as well as a small quantity required for plants.

SUGAR CANE: AREA(*a*), STATES, 1964–65 TO 1968–69

(Acres)

	New South Wales			*Queensland*			*Australia*			
Year	*Area crushed*	*Area of standover and newly-planted cane*	*Area cut for plants*	*Area crushed*	*Area of standover and newly-planted cane*	*Area cut for plants*	*Area crushed*	*Area of standover and newly-planted cane*	*Area cut for plants*	*Total*
1964–65 . .	19,429	17,043	728	450,956	126,906	12,896	470,385	143,949	13,624	627,958
1965–66 . .	15,824	23,350	668	487,375	105,361	14,243	503,199	128,711	14,911	646,821
1966–67 . .	22,475	18,548	613	534,998	78,609	13,265	557,473	97,157	13,878	668,508
1967–68 . .	22,181	18,761	488	530,828	89,494	13,194	553,009	108,255	13,682	674,946
1968–69 . .	22,174	18,588	599	546,306	84,237	13,314	568,480	102,825	13,913	685,218

(*a*) Excludes areas cut for green fodder and small area sown in Western Australia.

Production of cane and sugar

The production of sugar cane in 1968–69 was at the record level of 18,413,000 tons, which was 1,656,000 tons above the previous record production in 1967–68.

SUGAR CANE: PRODUCTION OF CANE AND RAW SUGAR, STATES, 1964–65 TO 1968–69
(Tons)

	New South Wales		*Queensland*		*Australia*	
Year	*Cane*	*Sugar(a)*	*Cane*	*Sugar(a)*	*Cane*	*Sugar(a)*
1964–65	784,126	95,195	14,286,350	1,854,883	15,070,476	1,950,078
1965–66	609,320	69,989	13,545,719	1,883,364	14,155,039	1,953,353
1966–67	1,171,441	139,967	15,513,449	2,202,809	16,684,890	2,342,776
1967–68	1,038,507	120,583	15,717,789	2,213,810	16,756,296	2,334,393
1968–69	997,813	120,381	17,414,966	2,604,319	18,412,779	2,724,700

(*a*) Raw sugar at 94 net titre.

Climatic conditions in New South Wales are such that the crop matures in from twenty to twenty-four months, whereas in Queensland a period of from twelve to sixteen months is sufficient. The average yields of cane and sugar per acre for the years 1964–65 to 1968–69 are shown below. Allowance should be made in interpreting these figures for the disparity in maturing periods noted above.

SUGAR CANE AND SUGAR: YIELD PER ACRE, STATES, 1964–65 TO 1968–69
(Tons)

	New South Wales			*Queensland*			*Australia*		
Year	*Cane per acre crushed*	*Sugar per acre crushed*	*Cane to each ton of sugar*	*Cane per acre crushed*	*Sugar per acre crushed*	*Cane to each ton of sugar*	*Cane per acre crushed*	*Sugar per acre crushed*	*Cane to each ton of sugar*
1964–65 . .	40.36	4.90	8.24	31.68	4.11	7.70	32.04	4.15	7.73
1965–66 . .	38.51	4.42	8.71	27.79	3.86	7.19	28.13	3.88	7.25
1966–67 . .	52.12	6.23	8.37	29.00	4.12	7.04	29.93	4.20	7.12
1967–68 . .	46.82	5.44	8.61	29.61	4.17	7.10	30.30	4.22	7.18
1968–69 . .	45.00	5.43	8.29	31.88	4.77	6.69	32.39	4.79	6.67

Production and utilisation of sugar

Details of the production and utilisation of sugar for the years 1964–65 to 1968–69 are shown below. Consumption is shown in terms of refined sugar, including that consumed in manufactured products. The production of raw sugar from 1935–36 is shown in plate 40, page 777.

SUGAR: PRODUCTION AND UTILISATION, AUSTRALIA, 1964–65 TO 1968–69

					Consumption in Australia(d)	
Year	*Changes in stocks(a)*	*Production (raw)*	*Exports(b)*	*Miscellaneous uses(c)*	*Total*	*Per head*
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
1964–65	− 4.1	1,880.0	1,308.2	20.5	555.4	110.3
1965–66	+ 82.6	1,961.8	1,289.0	22.1	568.2	110.7
1966–67	− 36.5	2,222.1	1,674.6	20.8	563.2	107.7
1967–68	+170.0	2,393.9	1,634.8	20.8	568.3	106.7
1968–69	n.a.	2,563.2	2,058.4	n.a.	584.7	107.6

(*a*) Includes allowance for estimated sugar content of imported foodstuffs. (*b*) Raw and refined, including ships' stores and sugar in exported foodstuffs. (*c*) Includes refining losses and quantities used in golden syrup and treacle. (*d*) Includes sugar content of manufactured products consumed.

The statistics of sugar usage in factories for 1968–69 are not yet available. However, the quantity recorded as used in factories in 1967–68 amounted to 377,132 tons compared with 372,394 tons in 1966–67 and 371,713 tons in 1965–66. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1967–68 the reported consumption by factories engaged in the production of jams, jellies and preserved and dried fruit and vegetables amounted to 77,288 tons, by those producing confectionery, ice cream, etc., to 74,196 tons, by breweries to 47,438 tons, and by factories producing aerated waters, cordials, etc., to 70,775 tons.

Sugar prices and returns

The current prices of sugar in Australia (as determined under the Sugar Agreement in Australia, *see* page 783) and details of net returns for raw sugar from 1964–65 to 1967–68 are shown in the following tables.

SUGAR: PRICES IN AUSTRALIA

	Raw sugar, 94 net titre			*Refined sugar*		
	Average return per ton received by millers and growers for—					
Year	*Home consumption*	*Exports(a)*	*Whole crop(a)*	*Date of determination*	*Wholesale price to retailer per ton*	*Retail price capital cities per lb*
	$	$	$		$	cents
1964 . .	120.75	83.89	95.78	16.5.60 to 18.6.67	180.52	9.2
1965 . .	121.95	67.27	85.14	19.6.67	206.72	10.5
1966 . .	121.25	57.47	75.01			
1967(*b*) . .	142.80	59.45	82.05			
1968(*b*) . .	143.20	63.04	82.10			

(*a*) Includes 'excess' sugar. (*b*) Excludes repayable Commonwealth grant (*see* page 785).

RAW SUGAR(*a*): NET RETURNS, AUSTRALIA, 1964-65 TO 1968-69
(*Source:* The Queensland Sugar Board)

Year	*Proportion exported*	*Net value of exports per ton*	*Average price per ton for whole crop*	*Estimated value of crop*
	per cent	$	$	$'000
1964–65	67.76	83.89	95.78	186,728
1965–66	67.31	67.27	85.14	166,270
1966–67	72.50	57.47	75.01	175,694
1967–68	72.89	59.45	82.05	191,471
1968–69	76.23	63.04	82.10	223,638

(*a*) 94 net titre.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated comprise the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges. They include concessions to the fruit industry and other rebates which in 1968–69 amounted to $4,451,000, but exclude the repayable Commonwealth grants referred to earlier. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent and 30 per cent respectively.

Exports of sugar

RAW AND REFINED SUGAR: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Quantity	tons	1,269,139	1,252,546	1,652,263	1,597,235	2,029,177
Value	$'000 f.o.b.	112,683	93,925	100,026	97,582	122,214

Tobacco

Tobacco is a summer-growing annual which requires a temperate to tropical climate, adequate soil moisture and a frost-free period of approximately five months. In Australia almost all tobacco is grown under irrigation. Because of specialised requirements, production is limited to areas with suitable soils and climate. The main centres of production are the Mareeba-Dimbulah districts of north Queensland and Myrtleford in north-eastern Victoria. Other areas where tobacco is grown include Bundaberg, Beerwah and Texas (Queensland), Ashford (New South Wales) and Gunbower (Victoria). All tobacco grown in Australia is of the flue-cured type except for small quantities of burley tobacco produced mainly in Victoria.

Marketing

Between 9 May 1941 and 24 September 1948 all leaf was under the direct control of the Australian Tobacco Board, and prices were paid on leaf appraisal. Subsequently the Board was disbanded, and sales have been by open auction through the Tobacco Leaf Marketing Board (Queensland and northern New South Wales) and the Victorian Tobacco Growers Association Ltd (southern New South Wales and Victoria). In 1964 the Victorian Tobacco Leaf Marketing Board was set up to market the portion of the crop that was formerly sold by the Victorian Tobacco Growers Association Ltd, and in 1965 a Board was established in New South Wales. However, the actual physical handling of New South Wales leaf at auction is carried out by the Queensland and Victorian authorities.

In 1965 the Commonwealth and State Governments agreed to a stabilisation plan for the tobacco growing industry with an annual marketing quota of 26 million pounds (green weight) of leaf to be sold under an agreed grade and price schedule providing for an average minimum price, based on normal crop fall-out. The overall marketing quota is divided among tobacco-producing States according to a formula approved by the Australian Agricultural Council. The determination of grower disputes in regard to quotas from State allocations is the responsibility of State Quota Committees.

In 1968, the final year of the plan, the Governments concerned agreed that it should continue for a further period of five years with an increased marketing quota for the 1969 selling season of 28.5 million pounds, which was subsequently increased to 31.5 million pounds to correct industry stockholdings which were depleted by higher than expected manufacturer usage. Provision was made for an annual review of the quota and in 1970 a basic quota of 34 million pounds was set for the 1971 season, to be divided among the producing States in the same proportions as the original quota.

The plan is administered by the Australian Tobacco Board, constituted under the *Tobacco Marketing Act* 1965–66 and representative of the Commonwealth, tobacco-producing States, growers, and manufacturers.

The guaranteed average minimum price for the 1970 season, 109.4 cents per lb, is 0.4 cents per lb above the amount set for the 1969 season.

Central Tobacco Advisory Committee

The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State Governments. Its main functions were to review the industry and make recommendations on its problems. The Committee was reconstituted by the Agricultural Council during 1952–53.

In 1955 the Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at $336,000, of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. Annual contributions are made to a fund by the Commonwealth and State Governments and tobacco growers and manufacturers. A Tobacco Industry Trust Account has been established under the *Tobacco Industry Act* 1955–1965 to receive these contributions. The contributions from growers and manufacturers are obtained under the Tobacco Charges Assessment Act and the Tobacco Charge Acts, whose purpose is to provide funds to be used in research and otherwise with a view to fostering and expanding the Australian tobacco industry. This programme commenced in 1956, and since then $6,564,924 has been paid to State and Commonwealth departments for expenditure on tobacco research and extension. The allocation for 1969–70 was $773,865. As from 1 July 1964 the annual Commonwealth contribution has been increased to one-half of approved expenditure from the Tobacco Industry Trust Account. In 1961 a Research Sub-Committee was established to review annually scientific programmes and finance in relation to the Tobacco Industry Trust Account and make recommendations to the Central Tobacco Advisory Committee. However, following the establishment of the

Australian Tobacco Board, the Australian Agricultural Council in 1966 abolished this sub-committee and reconstituted the Central Tobacco Advisory Committee to make annual recommendations to Council, regarding research and extension programmes financed from the Trust Account. In order to facilitate the early disbursement of funds the Central Tobacco Advisory Committee now submits its financial recommendations directly to the Minister under new terms of reference approved by the Australian Agricultural Council in July 1969. These are:

> 'To report annually to the Australian Agricultural Council, through the Standing Committee on Agriculture, regarding research and extension programmes to be financed from the Tobacco Industry Trust Account.'

Tobacco research and extension

Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30 June 1953 are given in Year Book No. 40, pages 895–6, and in previous issues.

The Commonwealth Scientific and Industrial Research Organization and the State Departments of Agriculture in the tobacco growing States are carrying out investigations into a wide range of problems involving fundamental research, plant breeding, variety trials, nutrition, disease and pest control, fertilisers, crop rotation, and cultural practices. The State Departments also provide extension services for tobacco growers.

Tobacco factories

Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages, which in November 1946 stood at 3 per cent for cigarettes and 5 per cent for tobacco, have been increased progressively in intervening years and since 1 January 1966 have been set at 50 per cent for both cigarettes and tobacco.

In 1967–68 the quantity of cured leaf recorded as used in tobacco factories in Australia amounted to 50 million lb, of which 23 million lb was of local origin. The balance was imported, chiefly from the United States of America and South Africa. Figures for 1968–69 are not yet available.

Tobacco area and production

The area of tobacco in 1968–69 was 12.3 per cent below the record area established in 1962–63. Production at 34,072,000 lb was 0.8 per cent below the record established in 1963–64.

TOBACCO: AREA AND PRODUCTION, STATES, 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
AREA (ACRES)							
1964–65 . .	2,546	9,720	14,042	..	..	..	26,308
1965–66 . .	1,742	9,230	12,509	..	..	..	23,481
1966–67 . .	1,794	8,455	12,134	..	..	..	22,383
1967–68 . .	1,831	8,664	12,472	..	..	..	22,967
1968–69 . .	2,190	9,727	13,837	..	..	..	25,754
PRODUCTION OF DRIED LEAF ('000 lb)							
1964–65 . .	2,356	12,080	10,675	..	..	..	25,111
1965–66 . .	1,698	11,083	14,580	..	..	..	27,361
1966–67 . .	2,133	10,953	14,819	..	..	..	27,905
1967–68 . .	2,075	7,625	15,021	..	..	..	24,721
1968–69 . .	2,481	12,075	19,517	..	..	..	34,072

Imports and exports of tobacco

Imports of tobacco and tobacco manufactures into Australia during 1968–69 were valued at $28.4 million. This included 29.2 million lb of unmanufactured tobacco valued at $21.8 million. Exports of tobacco and tobacco manufactures during 1968–69 were valued at $2,374,000, including Australian produce, $1,667,000.

Cotton

This annual shrub requires a hot climate and inter-row weed control. Lint (long fibres) is extracted from the seed cotton in the ginneries and is used for yarn. The residue, consisting of linters (short fibres), kernels and hulls (outer seed coat), is treated in oil mills. Linters are used in the manufacture of felts and other materials where fibre length is of little importance. The kernels when crushed produce an oil which is used for both edible and industrial purposes. The residual meal is a useful high protein stockfeed; the hulls may be used as fuel.

Until 1964 cotton growing was mainly confined to Queensland, most of it being grown under conditions of natural rainfall. Since then there has been an increasing trend in the use of irrigation. A sound industry has been established in the Namoi and Macquarie Valleys in New South Wales with water provided by the Keepit Dam. More than three quarters of Australia's raw cotton requirements are now produced in that area. Cotton is also grown under irrigation in Queensland and on the Ord River of Western Australia and to a lesser extent in the Murrumbidgee Irrigation Areas of New South Wales. Nearly all Australian cotton is now grown with the assistance of irrigation and acreage yields compare more than favourably with those obtained by traditional overseas cotton producing countries.

Cotton bounty

For particulars of the *Cotton Bounty Act* 1951–1958, *see* page 1044 of Year Book No. 49. This Act was replaced by the *Raw Cotton Bounty Act* 1963–1966 under which the Commonwealth agreed to pay a bounty on raw cotton produced and sold for use in Australia at the rate of 13.4375 cents per lb for Middling 1″ White, with premiums and discounts on grades and staples above and below, up to a maximum of $4 million in any one year, for a period of five years from 1 January 1964. In 1968 this Act was amended to extend bounty payments to all cotton produced in Australia of a grade higher than Strict Good Ordinary, whether used in Australia or not, provided it has a staple length of $\frac{7}{8}$″ or greater. The Commonwealth Government proposes to phase out the bounty assistance over the next three years, commencing with the 1969 crop. The maximum bounty will remain at the previous level of $4 million for 1969, falling to $3 million in 1970, and to $2 million in 1971 after which it will cease.

Cotton area and production

COTTON: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES
1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				AREA (ACRES)					
1964–65	18,897	(*a*)	13,550	..	5,475	..	..	..	(*b*)37,922
1965–66	33,176	(*a*)	13,455	..	8,307	..	..	..	(*b*)54,938
1966–67	30,104	..	11,167	..	11,892	..	..	..	53,163
1967–68	53,474	..	11,629	..	11,782	..	..	..	76,885
1968–69	59,769	..	12,140	..	8,327	..	..	..	80,236
				PRODUCTION (UNGINNED) ('000 lb)					
1964–65	45,951	(*a*)	6,268	..	10,790	..	..	..	(*b*)63,009
1965–66	103,280	(*a*)	10,138	..	20,431	..	..	..	(*b*)133,850
1966–67	79,159	..	11,800	..	29,400	..	..	..	120,360
1967–68	170,064	..	18,718	..	25,954	..	..	..	214,736
1968–69	173,759	..	23,363	..	21,560	..	..	..	218,682
				YIELD PER ACRE (lb)					
1964–65	2,432	(*a*)	463	..	1,971	..	..	..	(*b*)1,662
1965–66	3,113	(*a*)	754	..	2,460	..	..	..	(*b*)2,436
1966–67	2,630	..	1,057	..	2,472	..	..	..	2,264
1967–68	3,180	..	1,610	..	2,203	..	..	..	2,793
1968–69	2,907	..	1,924	..	2,589	..	..	..	2,725

(*a*) Not available for publication. (*b*) Incomplete; *see* individual States.

NOTE. Production in Queensland relates to the crop harvested in the first of the years mentioned, and in other States to the year following: e.g., for 1968–69, the Queensland crop was harvested during 1968, while the crop in other States was harvested during 1969.

Production of ginned cotton for 1964–65 was 17,286,000 lb; 1965–66, 40,885,000 lb; 1966–67, 35,510,000 lb; and 1967–68, 70,405,000 lb. Figures for 1968–69 are not yet available.

The gross value of unginned cotton for the five years ended 1968–69 was $7,685,000; $14,323,000; $12,468,000; $19,675,000; and $20,715,000 respectively.

Imports of raw cotton (excluding linters) during the past five years were: 1964–65, 55,474,000 lb; 1965–66, 32,096,000 lb; 1966–67, 19,963,000 lb; 1967–68, 27,066,000 lb; and 1968–69, 12,497,000 lb.

Exports of raw cotton (excluding linters) in 1968–69 were 8,231,000 lb, valued at $1,890,000. Japan and the Philippines were the principal importing countries.

Peanuts

Peanuts, or groundnuts, are a sub-tropical legume (and hence summer growers), the pods of which mature beneath the surface of the soil. They thus require well drained, light textured soils. At harvest the plant is pulled, wind-rowed, field-cured for two to four weeks, and then threshed to recover the pods. The main products of the industry are nuts, peanut oil, oil cake, and synthetic protein fibre.

The production of peanuts in Australia is confined mainly to Queensland, although small quantities are grown in New South Wales, the Northern Territory and, in some years, Western Australia.

PEANUTS: AREA AND PRODUCTION, STATES, 1964-65 TO 1968-69

	Area (Acres)			*Production (cwt)*		
Year	*N.S.W.*	*Qld*	*Aust.*	*N.S.W.*	*Qld*	*Aust.*
1964–65	400	45,554	(*a*)45,954	4,746	202,369	(*a*)207,115
1965–66	394	57,298	57,708	4,468	543,735	548,279
1966–67	397	69,330	(*a*)69,727	5,194	821,957	(*a*)827,151
1967–68	353	61,373	61,738	3,920	602,207	606,159
1968–69	183	78,454	(*a*)78,637	1,861	332,740	(*a*)334,601

(*a*) Incomplete: excludes Northern Territory.

The gross value of the 1968–69 crop was $3,152,000 which was approximately $2,984,000 less than in 1967–68. Total supplies available for consumption in Australia in 1968–69 were 27,196 tons (in shell equivalent), after allowing for a decrease of 14,916 tons in stock held by the Peanut Marketing Board, exports of 1,723 tons of peanut and peanut products, and industrial usage of 26,473 tons. Supplies were made up of 9,922 tons from Australian production received into store by the Board and 2,358 tons imported.

Flax

Prior to 1948–49 flax for the production of linseed oil had not been grown extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements. The main producing areas are the Darling Downs in Queensland, the wheat belt of New South Wales, and the western and north-eastern districts of Victoria. In recent years there has been increased production, principally for export, in the Esperance district of Western Australia.

Particulars of area and production of flax for linseed, by States, are given in the following table for the years 1964–65 to 1968–69.

FLAX FOR LINSEED: AREA AND PRODUCTION, STATES, 1964-65 TO 1968-69

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Area (acres)—						
1964–65	23,769	9,953	97,092	898	2,135	133,847
1965–66	3,658	7,370	12,266	1,196	97	24,587
1966–67	9,580	5,012	17,854	389	1,751	34,586
1967–68	9,947	9,365	27,764	516	6,886	54,478
1968–69	15,164	14,304	21,459	1,025	18,645	70,597
Production (tons of linseed)—						
1964–65	8,761	2,671	34,175	426	567	46,600
1965–66	213	2,538	2,895	403	15	6,064
1966–67	3,265	2,319	7,338	188	634	13,744
1967–68	952	804	6,571	72	2,083	10,482
1968–69	2,614	5,079	6,132	350	5,321	19,496

Hops

Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon wire and coir trellises, from which they are later harvested, principally by hand. The green hops are kiln-dried and bleached with sulphur dioxide fumes, following which the cured hops are pressed into bales.

Hop growing in Australia is confined to the Derwent, Huon and Channel areas of Tasmania and the Ovens and King Valleys in Victoria. A small area is also under hops in Western Australia, near Manjimup, but the details are not available for publication.

Production and imports of hops

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1964–65 to 1968–69. Exports of hops are negligible and are not recorded separately.

HOPS: PRODUCTION AND DISPOSAL, AUSTRALIA
1964-65 TO 1968-69

Year	Production(a)		Imports	Net available supplies(b)	Quantity used in breweries
	Quantity	Gross value			
	cwt	$'000	cwt	cwt	cwt
1964–65	27,892	2,372	9,521	37,413	39,517
1965–66	36,463	3,020	12,696	49,159	35,223
1966–67	28,907	2,531	2,683	31,590	31,347
1967–68	36,752	3,211	1,370	38,122	30,501
1968–69	42,757	3,788	1,501	44,258	34,077

(a) Excludes production in Western Australia, for which details are not available for publication. (b) Disregards movements in stocks.

Safflower

The cultivation of safflower in Australia has developed rapidly in recent years to make it one of the major oilseed crops. It is best cultivated either in the warm temperate zones or as a winter crop in the tropical or sub-tropical regions, on moderately fertile, weed-free, clay or sandy loams. Adequate moisture is required up to the flowering stage, after which it is relatively drought resistant. The soil preparation and sowing techniques are similar to those employed for small grains; it is usually harvested by combine when the seed is hard and dry. The oil, produced by crushing, is used in the manufacture of margarine, soaps, paints, varnishes, enamels, and textiles.

Queensland is the main producer of safflower where suitable growing conditions exist particularly in the marginal wheat regions of Dawson–Callide Valleys, Fitzroy Basin, Central Highlands, and the Darling Downs. Suitable growing conditions also exist in New South Wales, Victoria and Western Australia, but, at present, production in the latter two States is relatively small.

SAFFLOWER: AREA AND PRODUCTION, STATES AND TERRITORIES 1964-65 TO 1968-69

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				AREA (ACRES)					
1964–65	2,253	1,902	43,350	(*a*)	4	..	..	..	(*b*)47,509
1965–66	2,539	935	56,727	(*a*)	75	..	..	..	(*b*)60,276
1966–67	5,092	729	88,803	(*a*)	(*b*)	..	..	..	(*b*)94,624
1967–68	8,550	489	95,351	(*a*)	225	..	..	..	(*b*)104,615
1968–69	2,415	199	43,589	..	170	..	..	..	46,373
				PRODUCTION (BUSHELS)(*c*)					
1964–65	33,373	20,218	643,524	(*a*)	280	..	..	..	(*b*)697,395
1965–66	13,941	11,738	522,810	(*a*)	1,070	..	..	..	(*b*)549,559
1966–67	71,823	7,336	1,290,087	(*a*)	(*b*)	..	..	..	(*b*)1,369,246
1967–68	59,310	1,375	815,354	(*a*)	2,207	..	..	..	(*b*)878,246
1968–69	14,963	1,268	552,555	..	1,153	..	..	..	569,939

(*a*) Not available for publication. (*b*) Incomplete; *see* individual States. (*c*) 40 lb per bushel.

Imports of crude safflower seed oil in 1967–68 and 1968–69 totalled 833,000 gallons and 468,000 gallons respectively. These imports came mainly from the United States of America.

Vegetables for human consumption

Area, production and trade

Vegetables were initially grown on a large scale near the main cities, where there was ready access to reliable water supplies and to markets. Later, the expansion of irrigation areas and improvement in transport services resulted in their production being extended into many other areas. At present, because of the wide diversity of climatic conditions across Australia, supplies for main city markets are drawn from widely different areas, depending upon the times of maturity of the various crops. Apart from potatoes and onions, which are sold in some States through marketing boards, the bulk of vegetable trading takes place at the metropolitan markets of the cities concerned.

Details of the areas planted and production of individual kinds of vegetables are shown below for the seasons 1966–67 to 1968–69. Certain particulars shown are incomplete in that details for specific vegetables in some States are either not available or are not available for publication. For further information *see* the bulletin *Rural Industries*. Details of the estimated consumption of vegetables for a series of years ending 1968–69 are given in the chapter Miscellaneous.

FRESH VEGETABLES FOR HUMAN CONSUMPTION: AUSTRALIA 1966-67 TO 1968-69

	1966–67		*1967–68*		*1968–69*	
Vegetable	*Area sown*	*Production*	*Area sown*	*Production*	*Area sown*	*Production*
	acres	tons	acres	tons	acres	tons
Asparagus	4,227	5,776	4,315	7,427	4,148	6,270
Beans, French and runner	18,073	36,912	18,632	31,395	19,745	37,607
Beans, navy	5,153	933	6,045	1,445	13,528	4,159
Beetroot	2,558	22,426	2,428	22,138	2,188	19,441
Cabbages and brussel sprouts	6,193	76,151	5,948	69,001	6,421	72,899
Carrots	6,326	77,599	6,767	74,588	6,969	78,198
Cauliflowers	6,364	77,168	6,229	72,996	6,334	68,971
Celery	757	13,485	839	12,639	911	15,576
Cucumbers	1,987	8,870	2,197	10,280	2,106	9,758
Lettuce	5,046	24,324	5,399	24,639	5,405	24,881
Onions	10,210	84,465	9,852	58,486	11,307	86,145
Parsnips	1,278	15,163	1,302	13,806	1,308	14,417
Peas, blue	4,373	2,992	4,267	2,505	3,357	2,129
Peas, green	65,964	120,182	57,428	91,503	61,134	118,233
Potatoes	99,328	642,967	105,668	658,112	113,437	798,478
Tomatoes	17,791	172,965	17,266	153,309	17,479	154,317
Turnips, swede and white	1,655	8,834	1,727	8,493	1,983	9,170
All other	36,339	..	36,809	..	41,043	..
Total	**293,621**	..	**293,118**	..	**318,802**	..

Processed vegetables

Total production of canned vegetables in 1968–69 amounted to 190,015,000 lb. The principal types produced were green peas (excluding mint-pro peas), 30,364,000 lb; green beans, 9,615,000 lb; baked beans (including pork and beans), 40,933,000 lb; asparagus, 8,907,000 lb; beetroot, 40,422,000 lb; and mushrooms, 9,529,000 lb.

The production of dehydrated vegetables, including split peas, during 1967–68 amounted to 10,494,000 lb. Production of potato crisps, chips and flakes during 1968–69 was 25,577,000 lb.

There has been rapid development in the quick-frozen vegetable industry. Data were collected for the first time in 1957–58, when 13,846,000 lb of frozen vegetables were produced, made up principally of 10,131,000 lb of peas and 2,540,000 lb of beans. In 1968–69 production had risen to 141,842,000 lb, of which 80,425,000 lb were peas and 35,041,000 lb were beans.

Exports and imports of vegetables

Overseas exports of fresh and frozen vegetables during 1968–69 amounted to 44,418,000 lb valued at $2,678,000; dried vegetables, 6,674,000 lb valued at $366,000; preserved vegetables, 4,006,000 lb valued at $790,000; and other prepared or preserved vegetables, 116,000 lb valued at $71,000.

Imports of fresh and frozen vegetables during 1968–69 amounted to 16,836,000 lb valued at $2,094,000.

Potatoes

This crop requires deep friable soils, which in Australia are usually basaltic, alluvial or swampy in origin. Fertiliser requirements, which are generally high, vary with the type of soil. Potatoes are killed by heavy frost, but require only moderate temperatures for growth. Mechanical planters and diggers are used to a variable extent depending upon a variety of factors including terrain, state of the soil and scale of operations. Seed certification schemes, which operate in all States except Queensland, provide a supply of seed which is free from viral, fungal and bacterial diseases. In Australia potatoes are used almost entirely for human consumption and not for the production of starch or alcohol. They are rarely used as stock feed.

Area, production, and yield per acre. Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. New South Wales and Queensland come next in order of acreage sown. In New South Wales production is chiefly in the tablelands district.

**POTATOES: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND TERRITORIES, 1964-65 TO 1968-69**

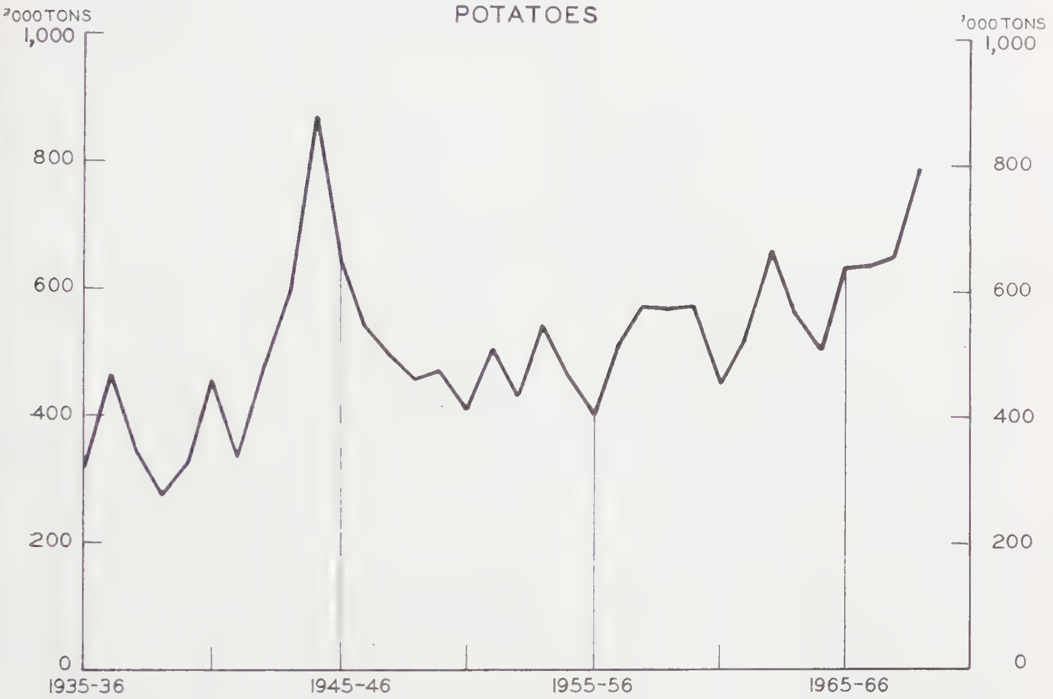
Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				AREA (ACRES)					
1964–65 . .	20,530	32,931	14,005	5,247	5,797	9,393	(*a*)	16	(*b*)87,919
1965–66 . .	21,913	34,333	16,080	5,748	6,229	11,993	1	14	96,311
1966–67 . .	23,594	37,167	16,227	5,948	6,100	10,278	(*a*)	14	(*b*)99,328
1967–68 . .	24,334	40,329	17,347	6,527	6,149	10,960	(*a*)	22	(*b*)105,668
1968–69 . .	29,236	39,979	18,515	7,643	6,588	11,461	(*a*)	15	(*b*)113,437
				PRODUCTION (TONS)					
1964–65 . .	75,769	183,665	82,389	48,400	60,739	57,062	(*a*)	105	(*b*)508,129
1965–66 . .	104,647	240,786	97,744	56,471	62,865	76,400	4	83	639,000
1966–67 . .	126,183	225,186	93,738	60,271	64,169	73,300	(*a*)	120	(*b*)642,967
1967–68 . .	122,795	215,941	106,429	63,331	70,469	79,058	(*a*)	89	(*b*)658,112
1968–69 . .	160,823	299,961	122,990	68,018	74,435	72,120	(*a*)	131	(*b*)798,478
				YIELD PER ACRE (TONS)					
1964–65 . .	3.69	5.58	5.88	9.22	10.48	6.07	(*a*)	6.56	(*b*)5.78
1965–66 . .	4.78	7.01	6.08	9.82	10.09	6.37	4.00	5.93	6.63
1966–67 . .	5.35	6.06	5.78	10.13	10.52	7.13	(*a*)	8.57	(*b*)6.47
1967–68 . .	5.05	5.35	6.14	9.70	11.46	7.21	(*a*)	4.05	(*b*)6.23
1968–69 . .	5.50	7.50	6.64	8.90	11.30	6.29	(*a*)	8.73	(*b*)7.04

(*a*) Not available for publication. (*b*) Incomplete; excludes Northern Territory.

The production of potatoes from 1935–36 is shown in plate 41, page 795.

PRODUCTION OF POTATOES AND ONIONS

AUSTRALIA, 1935-36 TO 1968-69



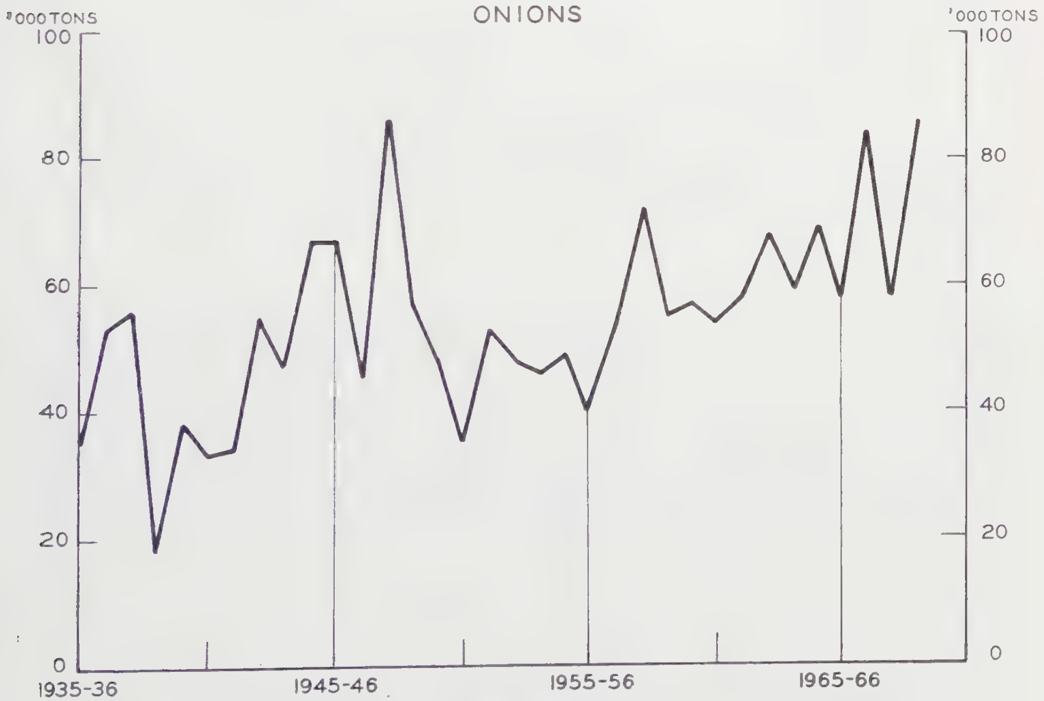


PLATE 41

Potato marketing boards were established in all States except Tasmania under separate State legislation after Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948. The life of the Queensland Board was not extended when its term ended in 1954. The New South Wales Board was voted out by growers in 1956, and the Victorian Board also ceased functioning in that year. The Boards in South Australia and Western Australia are the only statutory boards still in operation.

Value of potato crop. The estimated gross value of the potato crop of each State for the 1968–69 season and the value per acre are shown in the following table.

POTATOES: VALUE OF CROP, STATES, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.(a)*
Aggregate value .	$'000	9,595	10,343	11,679	4,045	5,613	2,119	43,399
Value per acre .	$	328	259	631	529	852	185	383

(*a*) Includes Australian Capital Territory.

Consumption and exports of potatoes. The annual consumption of potatoes in Australia during each of the three years 1966–67 to 1968–69 amounted to 574,700 tons, 587,700 tons and 721,200 tons. respectively or 109.9 lb, 110.4 lb and 132.7 lb respectively per head of population. These figures exclude the quantities used for seed, which averaged about 55,000 tons annually over this period. Details showing exports and imports for the years 1964–65 to 1968–69 are given in the following table.

POTATOES: EXPORTS AND IMPORTS, AUSTRALIA
1964-65 TO 1968-69

	Exports		*Imports*	
Year	*Quantity*	*Value*	*Quantity*	*Value*
	tons	$'000 f.o.b.	tons	$'000 f.o.b.
1964–65 . . .	4,715	427	5,404	343
1965–66 . . .	10,064	626	7,208	455
1966–67 . . .	13,593	839	. .	. .
1967–68 . . .	8,150	693	. .	. .
1968–69 . . .	12,591	966	237	12

Western Australia has emerged in recent years as the principal exporting State, accounting for over two-thirds of the Australian total in 1968–69. Australia's principal markets are Ceylon, Papua and New Guinea, and Singapore.

Fruit

The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics to strawberries, raspberries and currents in the colder parts of the temperate zone. In New South Wales citrus fruit (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears, and cherries are grown extensively. The principal varieties grown in Victoria are apples, pears, peaches, oranges, and apricots. In Queensland apples, pineapples, bananas, oranges, mandarins, peaches, and plums are the varieties most largely cultivated. In South Australia, in addition to oranges, apples, peaches, apricots, and pears, almonds and olives are grown extensively. In Western Australia apples, oranges, plums, and pears are the chief varieties. In Tasmania apples occupy over three-quarters of the fruit-growing area, but small fruit, such as currants, raspberries and gooseberries, are grown extensively, the balance of the area being mainly taken up with pears and apricots.

Overseas marketing of fruits

Details of the overseas marketing of fruits were published in Year Book No. 55 and earlier issues.

Area and production of fruit

In general the area under fruit in Australia has remained static during recent years.

FRUIT: AREA(*a*), STATES AND TERRITORIES, 1964-65 TO 1968-69

(Acres)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	97,221	75,509	45,918	43,012	26,425	22,375	130	56	310,646
1965–66	97,212	75,001	47,715	43,986	26,715	22,426	110	42	313,207
1966–67	96,482	73,519	50,058	44,157	26,458	22,343	133	38	313,188
1967–68	95,798	71,158	51,391	45,113	25,598	21,762	98	37	310,955
1968–69	94,685	71,598	52,750	44,497	25,366	21,429	90	32	310,447

(*a*) Bearing and not bearing.

FRUIT: AREA AND PRODUCTION, STATES AND TERRITORIES, 1968-69

Fruit	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
AREA (ACRES)(*a*)									
Apples	18,826	21,110	13,801	5,869	15,165	18,159	..	27	92,957
Apricots	1,819	3,022	529	4,583	276	349	..	..	10,578
Bananas	19,434	..	5,782	..	540	..	(*b*)	..	(*c*)25,756
Cherries	2,852	2,106	10	605	47	41	..	..	5,661
Citrus—									
Oranges	27,801	6,704	3,533	17,115	4,506	..	43	..	59,702
Mandarins	2,484	687	2,920	1,020	642	..	1	..	7,754
Lemons and limes	2,832	1,074	404	909	528	..	4	..	5,751
Other	765	340	163	515	109	..	4	..	1,896
Nuts	204	211	1,061	4,859	63	..	29	..	6,427
Peaches	7,512	13,839	1,721	4,631	855	39	..	..	28,597
Pears	3,105	17,126	1,124	1,885	978	1,337	..	..	25,555
Pineapples	194	..	15,534	..	..	..	(*b*)	..	(*c*)15,728
Plums	1,798	1,412	1,498	790	1,067	38	..	..	10,001
Prunes	3.228	170	..						
Small fruit	87	919	292	184	18	1,440	..	..	2,940
Other fruit	1,744	2,878	4,378	1,532	574	26	9	5	11,146
Total	**94,685**	**71,598**	**52,750**	**44,497**	**25,366**	**21,429**	**90**	**32**	**310,447**
PRODUCTION ('000 BUSHELS)									
Apples	3,701	4,858	2,043	1,561	2,870	7,138	..	3	22,174
Apricots	307	440	44	1,149	36	29	..	..	2,004
Bananas	3,695	..	993	..	253	..	(*b*)	..	(*c*)4,940
Cherries	123	149	1	39	3	2	..	..	316
Citrus—									
Oranges	5,657	1,360	865	3,703	551	..	2	..	12,137
Mandarins	205	81	409	92	49	..	..	..	837
Lemons and limes	503	215	120	75	154	..	1	..	1,069
Peaches	1,124	2,722	165	1,154	112	3	..	..	5,280
Pears	650	3,420	128	405	191	451	..	..	5,245
Pineapples	40	..	6,324	..	..	..	(*b*)	..	(*c*)6,363
Plums	161	125	137	58	100	6	..	..	904
Prunes	305	13	..						

(*a*) Bearing and not bearing. (*b*) Not available for publication. (*c*) Incomplete: *see* individual States.

Principal fruit crops

PRINCIPLE FRUIT CROPS: AREA, PRODUCTION, AND GROSS VALUE OF PRODUCTION, AUSTRALIA, 1964-65 TO 1968-69

Year	*Apples*	*Apricots*	*Bananas*	*Oranges*	*Peaches*	*Pears*	*Pineapples*	*Plums and prunes*
				AREA (ACRES)(*a*)				
1964–65 .	94,870	11,274	26,762	60,497	30,387	26,079	11,582	10,515
1965–66 .	94,865	11,427	26,555	61,517	30,036	25,941	12,938	10,474
1966–67 .	94,973	11,313	26,213	60,982	30,068	25,558	15,073	10,157
1967–68 .	92,591	10,925	26,398	59,830	29,735	25,627	15,550	10,026
1968–69 .	92,957	10,578	25,756	59,702	28,597	25,555	15,728	10,001
				PRODUCTION ('000 BUSHELS)				
1964–65 .	18,897	1,968	5,028	10,836	5,078	5,920	4,363	1,068
1965–66 .	19,783	1,778	4,694	9,137	5,508	7,485	4,924	952
1966–67 .	19,418	2,405	4,901	10,677	5,913	6,557	6,059	1,204
1967–68 .	19,615	1,519	5,145	9,846	6,294	7,351	6,804	778
1968–69 .	22,174	2,004	4,940	12,137	5,280	5,245	6,363	904
				GROSS VALUE OF PRODUCTION ($'000)				
1964–65 .	46,577	5,508	18,585	23,547	12,676	14,753	5,491	4,544
1965–66 .	47,631	5,119	20,409	22,037	13,795	17,674	6,165	3,419
1966–67 .	52,108	6,912	20,319	25,327	13,912	15,913	7,137	5,149
1967–68 .	49,741	4,637	19,636	24,496	14,123	16,469	6,470	3,362
1968–69 .	56,146	6,992	19,128	26,095	12,685	13,512	7,482	4,697

(*a*) Bearing and not bearing.

Production and consumption of jams and jellies and preserved fruit

In Australia considerable quantities of fruit are used in the production of jams and jellies and for preserving. The statistics of fruit usage in factories for 1968–69 are not yet available. However, during 1968–69 output of jams, conserves, fruit spreads, etc., amounted to 91,985,000 lb, while output of preserved fruit amounted to 512,578,000 lb. Of the latter figure, peaches accounted for 193,613,000 lb, pears 90,957,000 lb, and pineapples 66,839,000 lb.

In 1967–68, 9,102,000 cwt of fruit was recorded as used in factories classified to the sub-classes Oils, vegetable; Jam, fruit and vegetable canning; Condiments, coffee, spices; Aerated waters and cordials; and Dehydrated fruit and vegetables. Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1968–69 are shown in the chapter Miscellaneous.

Imports and exports of fruit and fruit products

The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates obtained almost entirely from Iraq and Iran. A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1968–69 amounted to $29,456,000 and $21,601,000 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruits are considerable.

FRESH AND FROZEN FRUIT: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69

Year	*Apples*		*Pears*		*Citrus*		*Total value(a)*
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	
	'000lb	$'000 f.o.b.	'000lb	$'000 f.o.b.	'000lb	$'000 f.o.b.	$'000 f.o.b.
1964–65 . .	296,142	20,989	65,745	5,297	51,936	3,382	30,543
1965–66 . .	351,246	25,863	94,005	7,464	58,080	3,685	37,819
1966–67 . .	288,834	18,280	64,620	4,800	58,656	3,779	27,869
1967–68 . .	277,814	17,368	68,922	5,442	54,875	3,656	27,535
1968–69 . .	287,135	19,964	46,652	4,107	68,312	4,423	29,456

(*a*) Includes exports of all other fresh and frozen fruit.

The quantity and value of overseas imports and exports of dried fruit, other than raisins and currants, for the years 1964–65 to 1968–69 are shown below.

DRIED TREE FRUIT(*a*): IMPORTS AND EXPORTS, AUSTRALIA
1964-65 TO 1968-69

Year	Imports(*b*)		Exports	
	Quantity	Value	Quantity	Value
	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.
1964–65	8,454	601	9,415	1,808
1965–66	8,145	557	11,907	2,450
1966–67	8,936	671	8,038	2,037
1967–68	8,996	750	8,027	2,016
1968–69	9,942	843	5,401	2,087

(*a*) Excludes sultanas, raisins and currants dealt with separately under Vineyards (*see* pages 801–2). (*b*) Dates and figs only.

Exports of jams and jellies in 1968–69 were 7,335,000 lb valued at $1,104,000, compared with 10,361,000 lb, valued at $1,463,000 in 1967–68. Imports of jams and jellies in 1968–69 were 3,116,000 lb, valued at $555,000, compared with 1,637,000 lb, valued at $324,000 in 1967–68.

Large quantities of canned or bottled fruit are normally exported from Australia, the quantity recorded in 1968–69 being 311,061,000 lb, valued at $37,841,000. Exports in 1968–69 were made up principally of peaches (126,176,000 lb), pears (91,739,000 lb), fruit salad (37,300,000 lb), pineapples (16,781,000 lb), and apricots (13,970,000 lb). In addition, the exports of pulped fruits during 1968–69 amounted to 1,920,000 lb valued at $367,000.

The total value of preserved fruit and fruit preparations (including fruit juices) imported into Australia during 1968–69 was $2,801,000. The value of exports of fruit juices in 1968–69 was $784,000.

Vineyards

Grapes require a warm to hot climate and a predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a minor extent, for table use. In Australia wine is produced very largely from irrigated crops, as are dried fruits. Some of the better known wine producing areas are the Murray Valley (South Australia and Victoria), Barossa Valley and Southern Vales Areas (South Australia), the Murrumbidgee Irrigation Areas and the Hunter Valley (New South Wales), the Mildura, Rutherglen and Stawell districts of Victoria, and the Swan Valley (Western Australia). Nearly all the dried fruit is produced along the River Murray and its tributaries, with small localised areas in other States.

Area of vineyards

The area under vineyards in the 1968–69 season in Victoria and South Australia constituted 77 per cent of the total area of vineyards.

VINEYARDS: AREA(*a*), STATES, 1964-65 TO 1968-69
(Acres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
1964–65	20,464	47,996	3,299	58,857	8,310	138,926
1965–66	21,292	48,617	3,268	58,730	8,215	140,122
1966–67	21,257	49,164	3,304	57,080	7,945	138,750
1967–68	22,155	48,725	3,400	58,129	7,665	140.074
1968–69(*b*)—						
Drying	7,724	36,793	. .	4,035	(*c*)2,568	51,120
Table	2,610	3,003	3,202	141	(*c*)976	9,932
Wine	12,415	9,174	306	56,398	(*c*)3,726	82,019
Total	**22,749**	**48,970**	**3,508**	**60,574**	**(*c*)7,270**	**143,071**

(*a*) Bearing and not bearing. (*b*) Area of individual categories is shown according to ultimate use to which grapes are put. (*c*) Estimated.

Wine industry

Australia produces wine of every type and also brandy. In recent years there has been a distinct trend towards greater consumption and production of unfortified or table wines. Until 1957–58 production of these wines (which include burgundy, claret, riesling, sauterne, and sparkling wines) was less than half that of the fortified varieties (sherries, ports, etc.). By 1968–69 production of table wines had exceeded the volume of fortified varieties.

The Wine Overseas Marketing Act 1929–1966 was introduced to place the overseas marketing of wine on an orderly basis. The Australian Wine Board, consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board also engages in wine publicity and trade promotion activities both in Australia and overseas. In London the Board maintains an Australian Wine Centre, which is a medium for promoting interest in Australian wines and brandy. It is also a retail shop for the sale of these products. The *Wine Grapes Charges Act* 1929–1966 provides for the imposition of a levy on all grapes used in Australia for the manufacture of wine, brandy and spirit used for fortifying wine. The proceeds of the levy are used to meet the Board's projects in Australia and overseas and to defray the administrative expenses of the Board, which has no other source of income.

Production and consumption of wine and brandy

In 1968–69 the total production of wine (beverage and distillation) in Australia was 51.9 million gallons, while total consumption of beverage wine was 22.0 million gallons (1.81 gallons per head of population). Similar particulars for 1967–68 are 44.2 million gallons and 19.8 million gallons (1.66 gallons per head of population) respectively.

WINE: PRODUCTION(*a*), STATES, 1964-65 TO 1968-69

('000 gallons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Aust.*
1964–65 . . .	6,404	3,656	24	28,022	613	38,718
1965–66 . . .	6,439	3,151	24	23,884	627	34,125
1966–67 . . .	7,893	3,555	37	29,324	705	41,514
1967–68 . . .	8,350	5,180	31	30,055	616	44,231
1968–69 . . .	8,597	6,241	32	36,230	837	51,936

(*a*) Net factory and farm production of beverage and distillation wine excluding the liquid gallonage of spirits added in wine fortifying.

BRANDY: PRODUCTION, SOUTH AUSTRALIA AND AUSTRALIA, 1964-65 TO 1967-68

(Proof gallons)

Year	*S.A.*	*Aust.(a)*
1964–65	1,183,351	1,400,100
1965–66	1,167,309	1,371,217
1966–67	650,618	791,163
1967–68	715,147	872,428

(*a*) Includes New South Wales and Victoria, for which separate details are not available for publication.

Exports and imports of wine and brandy

Principal markets for exports of Australian wine are the United Kingdom, Canada and New Zealand. During 1968–69 these countries received 1,003,000 gallons, 435,000 gallons and 91,000 gallons respectively. Exports of Australian-produced wine for the five years ended 1968–69 are shown in the following table.

WINE: EXPORTS, AUSTRALIA, 1964–65 TO 1968–69

Year	Quantity ('000 gals) Sparkling	Quantity ('000 gals) Other	Quantity ('000 gals) Total	Value ($'000 f.o.b.) Sparkling	Value ($'000 f.o.b.) Other	Value ($'000 f.o.b.) Total
1964–65 . . .	16	1,976	1,992	96	3,425	3,521
1965–66 . . .	35	1,922	1,957	171	3,364	3,535
1966–67 . . .	65	1,709	1,774	251	2,917	3,169
1967–68 . . .	88	1,751	1,839	359	2,794	3,153
1968–69 . . .	73	1,729	1,802	314	3,081	3,395

Imports of wine for 1968–69 amounted to 456,000 gallons valued at $1,883,000, compared with 305,000 gallons valued at $1,364,000 in the previous year. During 1968–69 Italy supplied 126,000 gallons valued at $455,000, France 78,000 gallons valued at $523,000 and Portugal 75,000 gallons valued at $233,000.

Exports of Australian-produced brandy in 1968–69 amounted to 97,000 proof gallons, valued at $463,000. Imports of brandy, mainly from France, amounted to 152,000 proof gallons, valued at $702,000.

Dried vine fruit industries

The dry period from November to March in the lower Murray valley makes this an ideal area for dried vine fruit. Harvesting for drying takes place at the end of summer. The sun-drying process is often accelerated by using a dip of cold potash.

The *Dried Fruits Export Control Act* 1924–1966. For details of the *Dried Fruits Export Control Act* 1924–1966 *see* Year Book No. 55, page 877, and earlier issues.

For details of the bulk purchase agreements between the Governments of the United Kingdom and Australia which operated during the period 1946–53 *see* Year Book No. 40, page 888. From 1 December 1953 exports to the United Kingdom have been on a trader to trader basis.

In June 1963 Australian, Greek and Turkish dried vine fruit interests concluded an agreement to maintain minimum prices for sultanas on world markets. The agreement, which aims at international price stability, is periodically reviewed. A permanent committee of the contracting parties was established in London for the purpose of supervising the working of the agreement, and a subcommittee of the permanent committee was established in Hamburg in 1964.

The *Dried Vine Fruits Stabilization Act* 1964–1966. For details of the Dried Vine Fruits Stabilization Scheme *see* Year Book No. 55, page 877, and earlier issues.

DRIED VINE FRUIT: PRODUCTION, STATES, 1964–65 TO 1968–69

(Tons)

Year	N.S.W. Raisins (a)	N.S.W. Currants	Vic. Raisins (a)	Vic. Currants	S.A. Raisins (a)	S.A. Currants	W.A. Raisins (a)	W.A. Currants	Aust. Raisins (a)	Aust. Currants
1964–65 . .	12,841	632	66,153	4 477	16,325	5,044	75	2,364	95,394	12,517
1965–66 . .	11,480	449	59,418	3,127	11,915	3,153	116	1,306	82,929	8,035
1966–67 . .	14,108	643	69,628	3,588	13,544	3,773	67	1,353	97,347	9,357
1967–68 . .	12,119	505	59,222	3,166	5,200	3,112	40	1,668	76,581	8,451
1968–69 . .	7,829	428	37,896	2,687	1,743	2,261	8	1,862	47,476	7,238

(*a*) Includes sultanas and lexias.

DRIED VINE FRUIT(a): EXPORTS, AUSTRALIA, 1963–64 TO 1967–68

Year	*Riasins, sultanas and lexias*		*Currants*		*Total*	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	tons	$'000 f.o.b.	tons	$'000 f.o.b.	tons	$'000 f.o.b.
1964–65	63,197	20,324	6,532	1,968	69,729	22,292
1965–66	74,704	24,070	6,102	1,918	80,805	25,988
1966–67	63,561	19,720	4,301	1,428	67,862	21,148
1967–68	63,562	19,459	3,907	1,316	67,469	20,775
1968–69	58,070	18,310	3,437	1,203	61,507	19,513

(a) Excludes quantities exported as mincemeat.

The chief countries importing Australian dried vine fruit are Canada, the United Kingdom, the Federal Republic of Germany, and Ireland. The quantities exported to these countries in 1968–69 were 19,792 tons, 17,631 tons, 7,517 tons and 1,952 tons respectively.

Table grapes

Grapes for table use are grown in all States except Tasmania, but the area of this type was only about 7 per cent of the productive area of vines in 1968–69. The quantities of table grapes produced during the season 1968–69 in each State are shown on page 759.

PASTORAL PRODUCTION

Livestock numbers

A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given on page 748 of Year Book No. 35. Since 1860 annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia, at decennial intervals from 1860 to 1960, and from 1965 onwards in single years, are given in the following table, and are shown continuously since 1870 on the graph on plate 42 following.

LIVESTOCK: AUSTRALIA, 1860 TO 1969
('000)

Year	*Horses*	*Cattle*	*Sheep*	*Pigs*
1860	432	3,958	20,135	351
1870	717	4,276	41,594	543
1880	1,069	7,527	62,184	816
1890	1,522	10,300	97,881	891
1900	1,610	8,640	70,603	950
1910	2,166	11,745	98,066	1,026
1920	2,416	13,500	81,796	764
1930	1,793	11,721	110,568	1,072
1940	1,699	13,080	119,305	1,455
1950	1,057	14,640	112,891	1,123
1960	640	16,503	155,174	1,424
1965	520	18,816	170,622	1,660
1966	n.a.	17,936	157,563	1,747
1967	479	18,270	164,237	1,804
1968	n.a.	19,218	166,912	2,056
1969	n.a.	20,606	174,602	2,253

While livestock numbers (particularly sheep) have increased substantially since 1860, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia. These occurred in 1868, 1877, 1883–84, 1892, 1893, 1895, 1901–02, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41, 1944–45 to 1946–47, and 1965–67. The years in which the numbers of livestock attained their peaks are as follows: horses, 1919 (2,527,000); cattle, 1969 (20,606,000); sheep, 1969 (174,602,000); and pigs, 1969 (2,253,000).

The distribution throughout Australia of sheep, beef cattle, dairy cattle, and pigs at 31 March 1963 is shown in the maps on pages 1049 and 1050 and facing pages 1082 and 1083 of Year Book No. 50.

The numbers of horses, cattle, sheep, and pigs in each State and Territory are shown later in this chapter.

Value of pastoral production and indexes of quantum and price

Values of pastoral production are shown for 1968–69 in the table following. Further details of values of pastoral production and indexes of quantum and price, together with details of the source of the information and an explanation of the terms used in this compilation will be found in the chapter Miscellaneous.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION: STATES AND TERRITORIES, 1968-69

($'000)

State or Territory	*Gross production valued at principal markets*	*Marketing costs*	*Local value of production*	*Value of materials used in process of production*	*Net value of production(a)*
New South Wales	445,340	41,532	403,807	(*b*)54,427	349,380
Victoria	345,275	24,643	320,631	57,924	262,707
Queensland	340,022	27,578	312,444	43,733	268,711
South Australia	136,070	8,347	127,724	21,394	106,329
Western Australia	210,780	15,480	195,300	26,572	168,728
Tasmania	39,117	2,855	36,263	17,578	18,684
Northern Territory	18,338	3,181	15,157	n.a.	15,157
Australian Capital Territory	1,875	151	1,724	141	1,583
Australia	**1,536,817**	**123,767**	**1,413,050**	**221,769**	**1,191,279**

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowance has been made for costs of power kerosene, petrol and other oils.

Sheep

Distribution throughout Australia

With the exception of a short period in the early eighteen-sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, although its relative importance has declined somewhat in recent years, due, among other factors, to heavy losses caused by drought conditions in 1965–66. Concurrently, there has been a marked increase in the sheep population of Western Australia, where figures have doubled in little more than a decade to give that State second position of importance in terms of sheep numbers.

A map showing the distribution of sheep in Australia at 31 March 1963 appears on page 1049 of Year Book No. 50. Graphs showing the number of sheep in Australia from 1870 onwards appear on plates 42 and 43 of this Year Book (pages 804 and 812).

SHEEP: NUMBERS IN STATES AND TERRITORIES, 1965 TO 1969

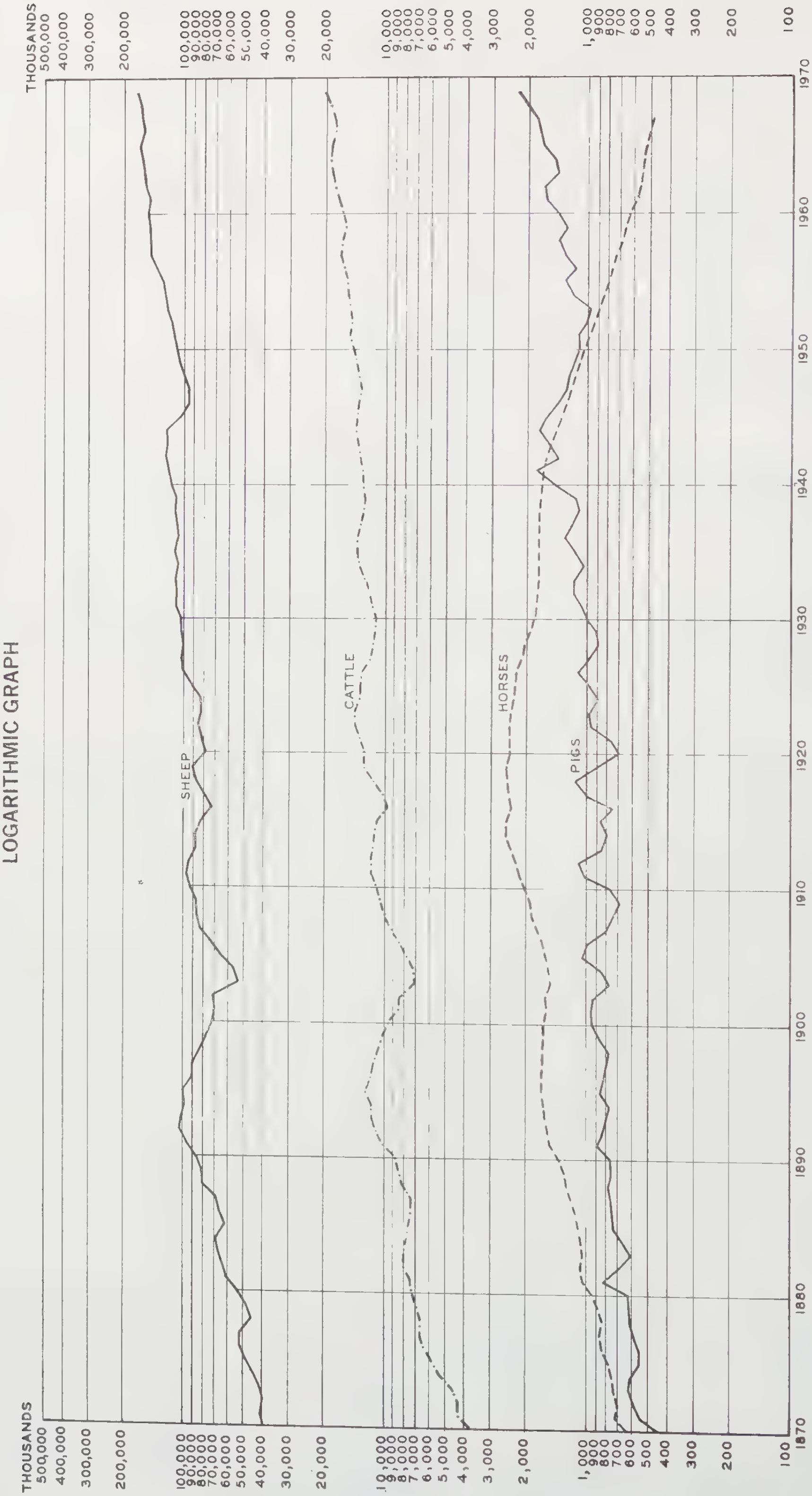
('000)

Year Ended 31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965	72,396	30,437	24,016	17,289	22,392	3,793	9	290	170,622
1966	61,396	30,968	18,384	17,993	24,427	4,127	9	258	157,563
1967	63,848	31,239	19,305	17,864	27,370	4,321	8	281	164,237
1968	67,786	27,909	19,948	16,405	30,161	4,428	9	267	166,912
1969	68,153	30,185	20,324	18,392	32,901	4,395	7	246	174,602

The percentage distribution of sheep and lambs in the several States in 1969 was: New South Wales, 39; Victoria, 17; Queensland, 12; South Australia, 11; Western Australia, 19; and Tasmania, 2.

LIVESTOCK: AUSTRALIA, 1870 TO 1969

LOGARITHMIC GRAPH



NOTE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY SCALE

PLATE 42

Movement in Sheep numbers

SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA
1964-65 TO 1968-69
('000)

Year ended 31 March	*Numbers at beginning of season*	*Lambs marked*	*Net exports*	*Sheep and lambs Slaughtered (a)*	*Estimated deaths on farms (b)*	*Numbers at close of season*
1965	164,981	47,608	307	33,549	8,111	170,622
1966	170,622	40,330	273	33,671	19,445	157,563
1967	157,563	47,830	337	33,350	7,469	164,237
1968	164,237	50,648	362	38,145	9,466	166,912
1969	166,912	51,171	361	35,676	7,444	174,602

(*a*) Includes an estimate for numbers boiled down. (*b*) Balance figure; excludes lambs which died before marking.

Comparisons of Australian flock numbers with those of certain other principal sheep-producing countries are given on page 818.

Classification of sheep according to age, sex, and breed

SHEEP, BY AGE AND SEX: AUSTRALIA, 31 MARCH 1965 TO 1969
('000)

Description	*1965*	*1966*	*1967*	*1968*	*1969*
Rams, 1 year and over	2,047	2,002	2,013	2,079	2,184
Breeding ewes (including ewes intended for mating) . . .	75,580	73,626	76,618	77,872	83,607
Other ewes, 1 year and over . .	8,952	7,397	7,117	6,700	6,424
Wethers, 1 year and over. . .	49,284	45,649	44,186	42,512	45,178
Lambs and hoggets, under 1 year .	34,759	28,890	34,302	37,750	37,209
Total, sheep and lambs . .	**170,622**	**157,563**	**164,237**	**166,912**	**174,602**

Particulars of the principal breeds of sheep at 31 March 1968 (details are collected on a triennial basis) are shown in the following table.

SHEEP, BY PRINCIPAL BREED: STATES AND TERRITORIES, 31 MARCH 1968
('000)

Breed	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Merino . . .	48,977	12,810	19,414	13,418	27,286	315	9	209	122,438
Other recognised breeds . . .	6,333	6,909	203	1,383	1,304	2,809	. .	14	18,954
Merino comeback(*a*) .	1,846	1,584	52	214	339	476	. .	5	4,516
Crossbreds(*b*) . .	10,630	6,605	279	1,391	1,232	829	. .	39	21,005
Total . .	**67,786**	**27,909**	**19,948**	**16,405**	**30,161**	**4,428**	9	**267**	**166,912**

(*a*) Merino comeback is the progeny of a crossbred Merino ewe and a Merino ram, i.e. finer than half-bred. (*b*) Half-bred and coarser.

Exports and imports of sheep

The overseas exports of live sheep from Australia are of comparatively minor importance. On 27 November 1929 the export of stud Merino sheep was prohibited, except with the approval of the Minister for Primary Industry. Exports of sheep are now principally for slaughter overseas. Consignments for this purpose in recent years were made chiefly from Western Australia to Kuwait and Singapore. In 1968-69 the number of sheep exported was 368,676, valued at $2,932,000 (1967–68, 358,143, valued at $3,301,000). Since June 1958 an embargo has been imposed on the import of sheep in order to prevent the introduction of the disease 'blue-tongue'.

Cattle

Objects of cattle-raising in Australia

Cattle-raising is carried out in all States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of profitable dairy herds. While dairy cattle are restricted mainly to coastal districts, beef cattle are more widely distributed, particularly in the eastern States, and are raised in areas unsuitable for dairy cattle, such as the tropical area of northern Queensland, the Northern Territory and the Kimberley district in the north of Western Australia.

Distribution throughout Australia

Although cattle numbers declined after 1957 because of drought conditions and heavy slaughterings, they began to rise again in 1960 and in 1964 reached 19,055,000. Again because of drought in the eastern States, this figure declined to 17,936,000 in 1966, but recovered to reach a record level of 20,606,000 in 1968–69.

A graph showing the number of cattle in Australia from 1870 onwards appears on plate 42, page 804.

CATTLE: NUMBERS IN STATES AND TERRITORIES, 1965 TO 1969

('000)

Year ended 31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965	4,619	3,316	7,393	697	1,258	451	1,068	14	18,816
1966	4,153	3,397	6,888	690	1,271	492	1,032	13	17,936
1967	4,146	3,528	6,919	687	1,357	522	1,097	14	18,270
1968	4,555	3,474	7,361	695	1,427	564	1,130	13	19,218
1969	4,864	3,878	7,668	865	1,546	586	1,185	14	20,606

The percentage of cattle in each State and Territory during 1969 was: New South Wales, 24; Victoria, 19; Queensland, 37; South Australia, 4; Western Australia, 7; Tasmania, 3; and Northern Territory, 6.

Maps showing the distribution of beef and dairy cattle in Australia appear on page 1050 and facing page 1082 of Year Book No. 50, and maps showing the distribution in earlier years were published in previous issues of the Year Book.

Classification of cattle

CATTLE, BY PURPOSE, AGE AND SEX: STATES AND TERRITORIES, 31 MARCH 1969

('000)

Classification	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Bulls (1 year and over) used or intended for service—									
Dairy breeds . .	15	37	13	6	3	3	. .	. .	77
Beef breeds . . .	76	44	129	13	26	7	28	. .	323
Total bulls . .	*91*	*81*	*141*	*19*	*29*	*10*	*28*	. .	*400*
Cattle used or intended for production of—									
Milk or cream for sale—									
Cows (in milk and dry)	604	1,209	497	138	97	153	1	1	2,701
Heifers—Springing (within 3 months of calving) . .	151	359	122	22	19	43	. .	. .	769
Other (1 year and over) . .				25	27				
Calves (under 1 year) . .	118	317	88	34	28	39	. .	. .	624
Milk or cream for use on rural holdings—									
House cows and heifers . .	85	25	35	7	8	5	. .	. .	165
Total cattle production of milk, etc. .	*958*	*1,910*	*742*	*226*	*179*	*240*	*1*	*2*	*4,258*
Cattle for other purposes(*a*)—									
Cows and heifers (1 year and over) . . .	2,062	949	3,440	350	712	150	661	7	8,330
Calves (under 1 year)(*b*) .	1,194	601	1,553	189	331	128	218	4	4,217
Other (1 year and over), i.e. steers, bullocks, speyed cows, etc.	561	336	1,792	81	296	57	276	1	3,401
Total cattle, other purposes . .	*3,816*	*1,887*	*6,784*	*620*	*1,338*	*335*	*1,155*	*11*	*15,948*
Total cattle and calves for all purposes . .	**4,864**	**3,878**	**7,668**	**865**	**1,546**	**586**	**1,185**	**14**	**20,606**

(*a*) Mainly for meat production. (*b*) Includes vealers, and bull calves intended for service.

CATTLE, BY PURPOSE, AGE AND SEX: AUSTRALIA, 31 MARCH 1965 TO 1969
('000)

Classification	*1965*	*1966*	*1967*	*1968*	*1969*
Bulls (1 year and over) used or intended for service—					
Dairy breeds	95	90	87	82	77
Beef breeds	274	261	279	299	323
Total bulls	*369*	*351*	*367*	*381*	*400*
Cattle used or intended for production of—					
Milk or cream for sale—					
Cows (in milk and dry)	3,012	2,908	2,881	2,794	2,701
Heifers—Springing (within 3 months of calving) and other (1 year and over)	843	823	796	755	769
Calves (under 1 year)	690	681	672	689	624
Milk or cream for use on rural holdings—					
House cows and heifers	202	186	180	169	165
Total cattle, production of milk, etc.	*4,747*	*4,598*	*4,528*	*4,407*	*4,258*
Cattle for other purposes(*a*)—					
Cows and heifers (1 year and over)	7,073	6,692	6,886	7,450	8,330
Calves (under 1 year) (*b*)	3,378	3,063	3,392	3,868	4,217
Other (1 year and over), i.e. steers, bullocks, speyed cows, etc.	3,248	3,232	3,097	3,113	3,401
Total cattle, other purposes	*13,699*	*12,987*	*13,375*	*14,431*	*15,948*
Total cattle and calves for all purposes	**18,816**	**17,936**	**18,270**	**19,218**	**20,606**

(*a*) Mainly for meat production. (*b*) Includes vealers, and bull calves intended for service.

For beef cattle and dairy cattle numbers prior to 1964 *see* pages 1056 and 1078 respectively of Year Book No. 50.

Exports and imports of cattle

In 1968–69 the number of cattle exported was 3,301, valued at $738,000 (1967–68, 3,989 valued at $563,000). Prior to June 1958 small numbers of cattle were imported, consisting mainly of valuable animals for stud purposes. Since that date an embargo has been imposed on the import of cattle in order to prevent the introduction of the disease 'blue-tongue'.

Comparison with other countries

The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date.

CATTLE: NUMBERS IN VARIOUS COUNTRIES
Source (for countries other than Australia): *World Agricultural Production and Trade*, United States Department of Agriculture
('000)

Country	*Year and month*	*Number* p
India(*a*)	1962 (May)	236,000
United States of America	1969 (January)	109,661
U.S.S.R.	1969 (January)	95,700
Brazil	1968 (December)	89,992
China (mainland)(*a*)	1960 (December)	65,400
Argentina	1968 (June)	51,465
Pakistan(*a*)	1961 (Estimate)	30,300
Mexico	1969 (December)	24,000
Ethiopia	1963 (Estimate)	22,000
France	1969 (October)	21,918
Australia	**1969 (March)**	**20,606**
Colombia	1969 (October)	19,583
Turkey(*a*)	1969 (December)	15,750
Germany, Federal Republic of	1969 (December)	14,045
South Africa	1968 (June)	12,145
United Kingdom	1969 (December)	12,123

(*a*) Includes buffaloes.

Horses

The number of horses in Australia reached a peak of 2,527,000 in 1919. Since then it has declined, because of mechanisation of transport and farming, and the number recorded at 31 March 1967 was 479,000. In future, particulars of horses will be collected only at triennial intervals.

A graph showing the number of horses in Australia since 1870 appears on plate 42, page 804.

HORSES: NUMBERS IN STATES AND TERRITORIES, 1965 TO 1969
('000)

31 March—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965 . .	158	56	201	(*a*)24	37	7	36	1	(*b*)520
1966 . .	151	n.a.	190	n.a.	35	n.a.	37	1	n.a.
1967 . .	146	55	182	16	35	7	38	1	479
1968 . .	n.a.	n.a.	181	n.a.	n.a.	n.a.	38	1	n.a.
1969 . .	132	n.a.	176	n.a.	n.a.	n.a.	39	1	n.a.

(*a*) Estimated. (*b*) *See* South Australia.

Overseas trade in horses

Exports of Australian-bred horses in 1968–69 numbered 622, valued at $1,370,000, made up of horses for breeding (201 valued at $234,000), horses for racing (335 valued at $1,078,000, shipped principally to the Philippines, Singapore and the United States of America), and horses for other purposes (86 valued at $58,000). Horses imported into Australia in 1968–69 (947 valued at $2,620,000) were mainly from New Zealand and the United Kingdom.

Pastoral products: wool

With about one-sixth of the world's woolled sheep, Australia produces almost one-third of the world's wool and more than half the world's fine-quality Merino wool. The bulk of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonised wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 818.

Wool marketing

Details of past wool marketing schemes and agreements, including the 1914–18 War Imperial Purchase Scheme, the British Australian Wool Realization Association Ltd, the 1939–45 War Acquisition Scheme, Joint Organization, and the 1951 Minimum Reserve Price Plan, are given in previous issues of the Year Book.

More than ninety per cent of the Australian wool clip is disposed of at auction. (During both world wars, however, auction selling was suspended and replaced by bulk purchase schemes). There are fourteen recognised wool-selling centres, namely Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Portland, Brisbane, Adelaide, Fremantle, Albany, Hobart, and Launceston. At these centres wool-selling brokers operate large stores where wool received from growers is held awaiting sale.

Each year a wool-selling programme is drawn up by the Joint Wool Selling Organisation representing wool growers, selling brokers and wool-buyers on the basis of the expected clip. Selling dates and the quantities to be offered are then determined for each centre. Before each sale the selling brokers, who act as agents for the wool-growers, display a representative portion of the wool to be sold on show floors for buyers' inspection and valuation. Auction sales are attended by buyers purchasing on behalf of wool users in more than fifty countries.

Wool Marketing Committee of Enquiry

In 1961 the Commonwealth Government appointed an independent committee to inquire into the marketing and promotion of Australian wool and related matters (*see* Year Book No. 48, page 977, for further details). The Committee presented its report to the Government in 1962. Its most important recommendation was that wool promotion, research and testing should be brought under the control of a single body, which should also act as an advisory authority on wool marketing. This recommendation was implemented under the *Wool Industry Act* 1962–1970 which set up the Australian Wool Board.

Australian Wool Board

This Board consists of a chairman, six woolgrower representatives, three members with special qualifications, and a representative of the Commonwealth Government. The first chairman of the Board was appointed by the Minister for Primary Industry after consultation with the Australian Wool Industry Conference (*see* below), but subsequent chairmen will be appointed by the Minister for Primary Industry after consultation with the Board. The six woolgrower representatives are appointed by the Minister on the nomination of the Wool Industry Conference, and the three members with special qualifications are appointed by the Minister after consultation with the Conference.

When the Board came into being on 1 May 1963 it took over the functions of the Australian Wool Bureau. On 1 July 1963 the Australian Wool Testing Authority became part of the Board, and on 1 January 1964 the Board took over the functions of the Wool Research Committee. Information on these three former instrumentalities appears in Year Book No. 48, pages 977–81.

Following the organisational changes carried out under the *Wool Industry Act* 1970, the functions of the Board embrace the following activities.

Wool promotion in Australia and overseas by publicity and other means. Promotion overseas is carried out through the International Wool Secretariat, which is maintained jointly by the Wool Boards of Australia, New Zealand, South Africa and Uruguay.

Provision of a testing service for wool and wool products. This service is administered by a subsidiary board retaining the name Australian Wool Testing Authority.

Wool Research. The Board is required to advise the Minister for Primary Industry on the general scope of those research programmes of the C.S.I.R.O. and the Bureau of Agricultural Economics in relation to the needs of the wool industry. The Board is also responsible for recommending grants from the Fund to recipients other than the C.S.I.R.O. and the Bureau of Agricultural Economics.

Investigation into all aspects of wool marketing on a continuing basis. The Board is required to inquire into, and from time to time report to the Australian Wool Industry Conference upon, methods of marketing wool and related matters. However, the Board has no executive powers over marketing.

In July 1964 the Board made recommendations to the Australian Wool Industry Conference for the introduction of a Reserve Price Plan for wool, which were put to woolgrowers in a referendum in December 1965. However, the plan was rejected by 53.4 per cent of the enfranchised woolgrowers who voted. For details *see* Year Book No. 52, page 945.

On 31 October 1967 the Board presented another report on wool marketing to the Australian Wool Industry Conference. The report included proposals for the establishment of an authority to enforce standards of clip preparation, administer the elimination of one, two, and three bale lots, conduct a price averaging plan for these wools and others voluntarily submitted, and conduct, in conjunction with wool selling brokers, a system of supply management involving chiefly wools in the price averaging plan. The report also recommended the establishment of an organisation of woolgrowers, brokers, and buyers to conduct and control the sale of wool at auction.

A recommendation that these proposals, with some amendments, be implemented by a non-statutory Australian Wool Marketing Corporation was accepted by the Australian Wool Industry Conference in November 1968. The proposals were then submitted to the Government with a request for assistance in financing some of their elements. In September 1969 the Minister for Primary Industry announced details of assistance offered by the Government in response to this request. The Government undertook to meet, for a period of three years, half of the costs involved in handling one, two and three bale lots admitted to the price averaging plan and half of wool selling brokers' administrative charges relating to the price averaging plan, on the understanding that the Government would share equally in any reductions in these charges.

The Government also undertook to meet any losses, incurred by the Wool Marketing Corporation, on wool it may have purchased at the end of a price averaging period and sold in a subsequent period. The Government's offer was conditional upon the Corporation undertaking to limit its activities to one, two and three bale lots and on the understanding that the total borrowings of the Corporation for the purchase and carry over of price averaging plan wool will not exceed $14,000,000 at any one time.

The Government's offer was accepted by the Wool Industry Conference at its meeting in November 1969. Arrangements were immediately commenced by the Wool Board to bring the Wool Marketing Corporation to operational status. The Price Averaging Plan Wool Marketing Scheme, administered by the Corporation, came into operation on 1 July 1970. Included in the Corporation's responsibilities are the operation of the Wool Statistical Service and the Wool Classer Registration Scheme, both formerly administered by the Wool Board. The Wool

Statistical Service (described in more detail in Year Book No. 48, pages 977–8) provides comprehensive statistics on the Australian wool clip, while the registration of wool classers is designed to improve the standards of wool classing in Australia.

Maintenance and administration of the wool stores which were entrusted to the Board by the Commonwealth Government. Further details concerning these stores appear in Year Book No. 48, page 978.

The establishment of integrated wool selling complexes. The aim is to make the cost savings inherent in this wool handling technique available to the woolgrowing industry as soon as possible.

At present the main sources of finance for the various activities of the Board are a levy paid by woolgrowers and contributions by the Commonwealth Government, *see* below.

The Australian Wool Industry Conference

This body was formed by woolgrowers in October 1962 to meet the need for an organisation with sufficient authority to speak on behalf of the woolgrowing industry as a whole. It is not a statutory body and consists of twenty-five members each from the Australian Woolgrowers' and Graziers' Council and the Australian Wool and Meat Producers' Federation. The fifty member conference is presided over by an independent chairman.

The Conference makes recommendations to the Commonwealth Government on policy matters concerning the wool industry. Under the Wool Industry Act it is the responsibility of the Conference to nominate woolgrower representatives for appointment to the Australian Wool Board. Under the Wool Tax Acts (*see* below) the Conference is also responsible for recommending to the Commonwealth Government what rates of levy should be paid by woolgrowers to finance the activities of the Wool Board and the wool research programme.

Wool levy

Since 1936 a statutory levy has been collected from woolgrowers to finance wool promotion activities. The initial rate of 5c a bale was increased at the request of woolgrowers to 20c a bale in 1945 and 40c a bale in 1952, the latter rate continuing until 1960. Further details regarding the operation of this levy prior to 1957 appear in Year Book No. 48, page 978.

Under legislation passed in 1957 provision was also made for the payment by woolgrowers of a contribution for wool research which was fixed at 20c a bale. In 1960 the wool promotion levy was raised to 50c a bale, and the following year it was increased further to $1 a bale. The operation of this rate was subsequently extended for 1962–63 and 1963–64.

On 1 July 1964 the basis for collecting the woolgrowers' combined levy for wool promotion and research was changed from a flat rate per bale to a percentage deduction from the gross value of shorn wool sold. A maximum rate of 2 per cent was fixed, but provision was made for a lower rate to be prescribed, if appropriate. For 1964–65 the rate was set at 1.875 per cent, which involved a substantial increase in payments by woolgrowers for promotion (from $1 per bale to the equivalent of about $2.70 per bale), while the research component of the levy was left unaltered at 20c per bale. In 1965–66 the levy was set at 2 per cent and it remained at the maximum rate till 1969–70. From 1 August 1970, the rate of levy was reduced to 1 per cent.

The imposition and collection of the combined levy from woolgrowers is governed by six complementary Acts, the Wool Tax Acts (Nos 1 to 5) 1964 and the *Wool Tax Administration Act* 1964–1966.

Commonwealth Government's contributions to wool research and promotion

In 1945 the Commonwealth Government commenced contributing on a statutory basis to wool research. Initially the contribution was at the rate of 20c a bale, but this was doubled in 1957 to 40c a bale. At this rate the Commonwealth Government contributed about $2,000,000 to wool research in 1965–66, and a similar sum was provided in 1966–67.

Prior to 1964–65 the Commonwealth Government had not contributed to wool promotion. However, following representations made by the Australian Wool Industry Conference, the Commonwealth Government undertook to provide assistance to the Australian Wool Board in financing its commitment to the greatly expanded wool promotion programme of the International Wool Secretariat. The expanded wool promotion programme, announced by the Secretariat, envisaged an increase in the Wool Board's annual contribution to overseas wool promotion campaigns from the then level of $5,000,000 to about $20,000,000.

From 1 July 1964 the Commonwealth Government agreed to match on a $1 for $1 basis any increase in contributions by woolgrowers for wool promotion in excess of the levy of $1 a bale then in force, and the Wool Industry Conference agreed to increase the growers' levy to the equivalent of about $2.70 a bale, which resulted in a Commonwealth commitment of about $1.70 a bale. In aggregate this commitment entailed a Commonwealth contribution for promotion of about $8,500,000 a year. This arrangement operated until 30 June 1967.

During 1967 the Wool Industry Act was amended following negotiations between the Executive of the Australian Wool Industry Conference and the Government. The amendment provided for a Government contribution for wool research and promotion during the three years 1967–68 to 1969–70 on a $1 for $1 basis matching woolgrowers' contribution by levy, to a maximum of $14,000,000 in any one year. It provided for the grower levy and the Government grant to be apportioned annually between wool research and promotion by the Minister for Primary Industry after considering the recommendations of the Australian Wool Industry Conference. No change occurred in the legislation providing for the payment by woolgrowers of a levy at a rate not exceeding two per cent per annum.

In August 1969, the Government announced that when the then current arrangements for Government financial support for wool research and promotion expired on 30 June 1970, it would increase its contribution for these activities to an average of $27,000,000 a year for each of the three years 1970–71 to 1972–73. An amendment to the Wool Industry Act was enacted in 1970 to give effect to this undertaking. At the same time, as mentioned above, the levy on woolgrowers was reduced from 2 per cent to 1 per cent of the gross proceeds from the sale of shorn wool.

Wool production

Wool as shorn from the sheep contains an appreciable amount of grease, dirt and other extraneous matter, and is termed 'greasy wool'. The quantity of grease and other matter in a fleece differs not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. To allow for this factor, the weight of greasy wool is sometimes given on a 'clean' basis, i.e. minus the estimated amount of impurities. The net wool fibre content of greasy wool, expressed as a percentage, is termed 'clean yield'.

From 1946–47 to 1952–53 the Australian Wool Realisation Commission, and from 1953–54, the Wool Statistical Service, have assessed annually the clean yield of the Australian wool clip. During the period of assessment the clean yield showed a continuous rise up to 1951–52, when it reached 57.5 per cent. It has since fluctuated between 55.7 per cent and 57.7 per cent. It was 57.1 per cent in 1968–69.

Wool scoured, washed and carbonised in Australia before export, however, has a clean yield somewhat lower than for the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonised contains quantities of dirty and low-grade wool. The quantity of scoured wool exports during 1968–69 was about 8 per cent of the total raw wool exports (excluding wool exported on skins) in terms of greasy. For the clean yield of Australian scoured wools exported a standard factor of 93 per cent is taken.

The production of wool in the States and Territories varies broadly in accordance with the number of sheep depastured and with seasonal conditions which affect clip per head (*see* page 813). In general, however, South Australia obtains from its large-framed merinos a much heavier fleece per sheep than the Australian average. In addition, as a result of better management (improved pastures, fodder conservation, better breeding, control of diseases, etc.), the long-term trend has been towards higher fleece weights.

The following table shows details of total wool (i.e. shorn, dead and fellmongered, and exported on skins) produced by each of the States and Territories during the years 1964–65 to 1968–69. A graph showing the production of wool in relation to sheep numbers from 1870 onwards appears on plate 43 following.

PRODUCTION OF WOOL (GREASY BASIS): STATES AND TERRITORIES, 1964-65 TO 1968-69
('000 lb)

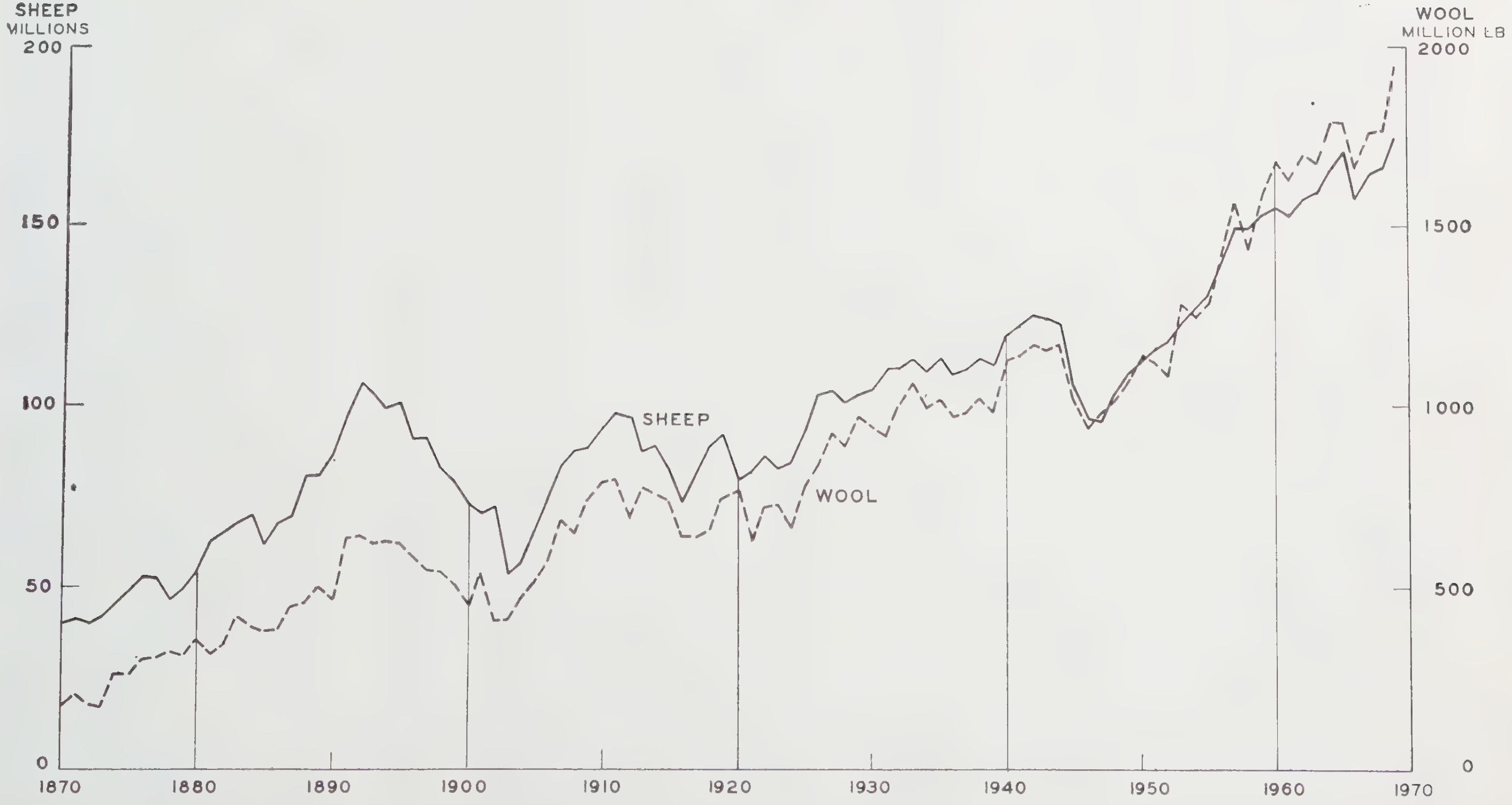
Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	706,061	361,530	251.426	215,736	207,035	39,671	89	2,475	1,784,023
1965–66	579,475	366,943	192,773	232,296	247,530	41,858	88	1,873	1,662,836
1966–67	622,745	378,457	203,664	239,202	272,575	43,153	88	2,454	1,762,338
1967–68	650,420	332,427	226,822	218,951	300,229	38,308	112	2,238	1,769,507
1968–69	673,531	364,347	247,005	238,120	375,650	46,955	111	2,059	1,947,778

The bulk of the Australian wool production (about 91 per cent in recent years) is shorn from live sheep. The remainder is obtained by fellmongering (less than 1.5 per cent) or is exported on skins (about 8 per cent). The following table shows details of total wool production according to method of obtaining wool, and also the gross value of wool produced. Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

PLATE 43

SHEEP NUMBERS AND WOOL PRODUCTION

AUSTRALIA, 1870 TO 1969



QUANTITY (GREASY BASIS) AND VALUE OF WOOL PRODUCED AUSTRALIA, 1964-65 TO 1968-69

Year	Shorn (including crutchings)	Dead and fell-mongered	Exported on skins	Total production	
				Quantity	Value
	'000 lb	'000 lb	'000 lb	'000 lb	$'000
1964–65	1,629,412	26,865	127,746	1,784,023	840,552
1965–66	1,503,457	24,411	134,968	1,662,836	808,437
1966–67	1,602,229	24,841	135,269	1,762,338	812,230
1967–68	1,605,056	23,944	140,507	1,769,507	709,524
1968–69	1,773,222	25,223	149,332	1,947,778	838,651

Average fleece weight

AVERAGE WEIGHT OF FLEECES SHORN (SHEEP AND LAMBS) STATES AND TERRITORIES, 1964-65 TO 1968-69

(lb)

State or Territory	Sheep					Lambs				
	1964–65	1965–66	1966–67	1967–68	1968–69	1964–65	1965–66	1966–67	1967–68	1968–69
N.S.W.	9.81	8.65	10.01	9.87	10.06	3.34	2.99	3.21	3.16	3.56
Vic.	10.08	9.63	9.90	9.08	9.79	2.97	2.72	2.90	2.56	2.97
Qld	9.65	8.79	9.94	10.62	11.26	3.78	3.56	3.55	4.10	4.34
S.A.	12.49	12.72	12.75	12.25	13.41	3.79	3.73	3.90	3.38	3.93
W.A.	10.06	10.74	10.67	10.57	11.72	2.69	2.90	2.98	2.97	3.47
Tas.	10.64	10.34	10.22	8.62	10.62	2.31	2.48	2.54	2.28	2.66
N.T.	9.26	8.13	8.13	10.89	10.78	3.88	3.00	3.00	..	..
A.C.T.	9.07	7.33	9.81	8.67	8.54	1.93	1.82	1.64	1.65	1.67
Aust.	**10.15**	**9.63**	**10.39**	**10.14**	**10.81**	**3.24**	**3.03**	**3.19**	**3.09**	**3.52**

Classification of wool according to quality

The following table provides a detailed analysis of wool sold at auction, according to quality, for the years 1964–65 to 1968–69. These data are compiled by the Wool Statistical Service on the basis of catalogues of auction sales. 'Quality' ('64's, 60's, 58's,' etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1lb of tops (combed wool) of that particular wool.

CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(*a*): AUSTRALIA 1964-65 TO 1968-69

(Bales of approximately 300 lb)

Predominating quality	1964–65		1965–66		1966–67		1967–68		1968–69	
	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent
70's and finer	145,267	2.9	149,305	3.3	114,406	2.4	131,939	2.7	113,057	2.2
64/70's	409,279	8.2	402,134	8.8	292,158	6.2	270,039	5.6	203,969	3.9
64's	620,453	12.5	576,499	12.7	470,153	9.9	468,436	9.7	381,785	7.5
64/60's	486,575	9.7	373,796	8.2	403,917	8.5	427,884	8.8	401,844	7.9
60/64's	1,108,668	22.2	896,070	19.7	1,002,088	21.1	1,089,866	22.4	1,081,779	21.1
60's and 60/58's	930,821	18.7	900,760	19.8	1,016,979	21.5	1,073,517	22.1	1,228,214	24.0
Total, 60's and finer	*3,701,063*	*74.2*	*3,298,564*	*72.5*	*3,299,701*	*69.6*	*3,461,681*	*71.3*	*3,410,648*	*66.6*
58's	586,708	11.8	591,790	13.0	660,570	13.9	623,043	12.8	789,540	15.4
56's	406,878	8.2	386,169	8.5	461,182	9.7	433,505	8.9	514,587	10.1
50's	153,079	3.1	133,574	2.9	178,587	3.8	173,313	3.6	204,014	4.0
Below 50's	51,534	1.0	44,887	1.0	61,289	1.3	59,401	1.2	72,710	1.4
Oddments	82,742	1.7	94,268	2.1	81,725	1.7	104,738	2.2	126,142	2.5
Grand total	**4,982,004**	**100.0**	**4,549,252**	**100.0**	**4,743,054**	**100.0**	**4,855,681**	**100.0**	**5,117,641**	**100.0**

(*a*) All greasy wool sold at auction except 'wool re-offered account buyer'.

Price and value

During 1968–69 the price of greasy and scoured wool sold in the selling centres of Australia averaged 44.7c per lb compared with the average price of 41.75c per lb in 1967–68 and 47.39c per lb in 1966-67. These prices are as compiled by the National Council of Wool Selling Brokers and represent the average price realised for all greasy and scoured wool, of whatever type or quality, marketed during the years indicated.

Fluctuation in Australian wool prices has a marked effect on the nation's rural and national income. In 1945–46 the gross value of wool production was $117,194,000, representing 17.4 per cent of the gross value of production of all rural industries, while in 1950–51, when prices reached a peak, wool was valued at $1,303,804,000 or 55.6 per cent of the total value of production for all rural industries. The value of wool production fluctuated considerably in subsequent years. In 1968–69 it was $838,651,000, 21.2 per cent of the gross value of production of rural industries.

ESTIMATED GROSS VALUE OF TOTAL WOOL PRODUCTION(*a*) STATES AND TERRITORIES, 1964-65 TO 1968-69

($'000)

Season	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65 .	336,675	176,041	117,218	94,328	95,804	19,051	39	1,396	840,552
1965–66 .	278,295	193,797	90,961	103,638	118,198	22,405	41	1,105	808,437
1966–67 .	286,293	180,946	93,190	104,588	124,821	20,983	39	1,370	812,230
1967–68 .	265,527	133,213	94,874	79,925	119,146	15,609	41	1,189	709,524
1968–69 .	296,005	155,547	108,060	95,054	161,589	21,180	38	1,178	838,651

(*a*) Includes shorn, dead and fellmongered wool and wool exported on skins.

Stocks of wool

Stocks of raw wool held in Australia at 30 June 1969 amounted to 330.2 million lb (greasy basis) of which 59.0 million lb (37.0 million lb as greasy and 22.0 million lb as scoured and carbonised) was held by woollen mills, wool scourers and fellmongers, and 271.2 million lb, assumed to be all greasy, was held by brokers. Of the wool held by brokers, 82.4 million lb was unsold wool and 188.8 million lb was sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

Consumption of wool

Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonised wool used on the woollen and worsted systems (mill consumption), plus quantities used in such processes as felting. Consumption estimates compiled on this basis have obvious defects, as they disregard overseas trade in semi-processed wool (e.g. tops and yarns) as well as woollen goods. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia are shown in the following table for the years 1964–65 to 1968–69.

ESTIMATED CONSUMPTION OF RAW WOOL: AUSTRALIA, 1964-65 TO 1968-69

('000 lb)

	Greasy basis			*Clean equivalent*		
Year	*Used on woollen and worsted systems*	*Used for felt manufacture (including hats)*	*Total*	*Used on woollen and worsted systems*	*Used for felt manufacture (including hats)*	*Total*
1964–65	121,621	2,826	124,447	71,764	1,342	73,106
1965–66	126,119	1,990	128,109	74,418	945	75,363
1966–67	121,777	2,210	123,987	71,412	1,050	72,462
1967–68	128,401	2,530	130,931	73,043	1,202	74,245
1968–69p	130,903	2,530	133,433	74,466	1,202	75,668

As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown on page 814 is over-stated to this extent. The series 'Estimated consumption of processed wool in Australia' provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown in the following table for the years 1964–65 to 1968–69. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for overseas trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF PROCESSED WOOL: AUSTRALIA
1964-65 TO 1968-69

('000 lb)

	Greasy basis				*Clean equivalent*			
Year	*Worsted yarn used (a)(b)*	*Woollen yarn used (b)*	*Scoured wool used for felt manufacture (including hats)*	*Total*	*Worsted yarn used (a)(b)*	*Woollen yarn used (b)*	*Scoured wool used for felt manufacture (including hats)*	*Total*
1964–65	47,172	40,575	2,826	90,573	27,233	24,408	1,342	52,983
1965–66	47,426	34,107	1,990	83,523	27,496	20,829	945	49,270
1966–67	43,969	38,628	2,210	84,807	25,376	23,499	1,050	49,925
1967–68	44,496	37,197	2,530	84,223	24,801	22,667	1,202	48,670
1968–69p	38,927	45,510	2,530	86,967	21,694	27,733	1,202	50,629

(*a*) Includes hand knitting yarns used. (*b*) Includes wool content of yarns containing a mixture of wool and other fibres.

Quantities of wool exported

Of the total shipments of greasy and slipe wool in 1968–69, 36 per cent went to Japan, 9 per cent to France, 9 per cent to Italy, 8 per cent to the United Kingdom, 7 per cent to the Federal Republic of Germany and 6 per cent to Belgium-Luxembourg.

EXPORTS OF GREASY AND SLIPE WOOL: AUSTRALIA, 1964-65 TO 1968-69

('000 lb actual weight)

Country of consignment	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Belgium-Luxembourg	106,391	88,802	98,546	95,934	84,557
France	122,283	130,903	106,208	120,641	130,776
Germany, Federal Republic of	85,944	91,006	71,170	100,823	96,880
India	18,858	9,241	29,583	21,562	34,027
Italy	95,175	137,405	151,749	123,116	130,678
Japan	424,175	467,587	492,456	498,087	530,453
Netherlands	6,932	13,165	13,998	15,294	28,960
Poland	22,983	28,441	30,651	35,536	34,460
United Kingdom	192,961	133,696	145,828	143,593	115,856
United States of America	67,093	72,720	55,721	60,165	60,611
U.S.S.R.	50,681	29,542	29,205	46,147	62,018
Other	142,923	121,831	142,786	133,490	161,723
Total	**1,336,399**	**1,324,339**	**1,367,901**	**1,394,388**	**1,470,999**

EXPORTS OF SCOURED AND WASHED, AND CARBONISED WOOL: AUSTRALIA
1964-65 TO 1968-69
('000 lb actual weight)

Country of consignment	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Canada	4,966	2,925	3,767	5,087	2,203
China (Taiwan)	1,852	1,863	1,487	990	1,511
France	3,268	2,877	2,920	2,443	2,326
Germany, Federal Republic of	8,997	7,531	7,100	8,648	6,773
Hong Kong	792	2,439	2,816	2,689	4,551
Iran	3,513	4,668	4,650	4,729	4,111
Italy	6,292	7,928	8,048	8,708	7,434
Japan	4,122	5,594	4,215	3,952	3,644
Korea, Republic of	253	155	1,025	1,823	2,693
United Kingdom	12,812	14,521	16,850	18,931	13,509
United States of America	27,834	27,671	16,180	18,377	19,061
U.S.S.R.	. .	. .	2,472	3,675	7,742
Other	12,752	10,591	8,340	9,985	9,834
Total	**87,453**	**88,763**	**79,870**	**90,037**	**85,392**

EXPORTS OF CARDED OR COMBED WOOL, NOILS AND WOOLWASTE: AUSTRALIA
1964-65 TO 1968-69
('000 lb actual weight)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Carded or combed—Tops	19,232	22,909	23,975	22,617	24,124
Other	17	175	. .	. .	6
Noils	4,066	3,734	4,114	3,886	3,386
Waste—Soft wool	2,393	2,734	2,585	2,875	2,261
Hard wool	2,595	2,891			

The following table shows the estimated greasy and clean weights of exports of raw and semi-processed wool for the years 1964–65 to 1968–69. As the figures in the following table are in terms of 'greasy' or 'clean' basis, they differ from those in the preceding tables which represent actual weight shipped.

EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA
1964-65 TO 1968-69
('000 lb)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*p
GREASY BASIS					
Raw wool—					
Greasy and slipe	1,336,920	1,324,763	1,368,237	1,395,405	1,473,295
Scoured and washed and carbonised	140,617	141,780	128,614	147,119	139,531
Exported on skins	127,746	134,968	135,269	140,507	154,022
Total raw wool	*1,605,283*	*1,601,511*	*1,632,120*	*1,683,031*	*1,766,848*
Semi-processed wool—					
Tops	34,041	43,069	44,687	24,426	25,571
Yarn	354	530	263	240	200
Total raw and semi-processed wool	**1,639,678**	**1,645,110**	**1,677,070**	**1,707,697**	**1,792,619**

EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA 1964–65 TO 1968–69—*continued*

('000 lb)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*p
CLEAN EQUIVALENT					
Raw wool	935,755	926,812	951,373	967,577	1,030,884
Semi-processed wool	19,819	25,274	25,754	24,563	25,685
Total	**955,574**	**952,086**	**977,127**	**992,140**	**1,056,569**

Value of wool exported

The value of wool (other than wool on sheepskins) exported from Australia during 1968–69 was 25 per cent of the total value of exports of merchandise of Australian origin, while the proportion for the five years ended 1968–69 averaged 27 per cent. The value for the five years ended 1968–69, together with the principal countries to which wool was exported, is shown in the following table.

VALUE OF WOOL EXPORTS: AUSTRALIA(*a*), 1964-65 TO 1968-69

($'000)

Country of consignment	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Belgium-Luxembourg	42,664	34,059	39,822	32,712	32,709
France	61,799	64,990	53,554	49,430	59,991
Germany, Federal Republic of	50,179	51,174	40,552	46,517	48,994
Italy	54,515	76,630	82,229	60,182	70,127
Japan	242,549	259,731	274,321	245,882	263,320
United Kingdom	110,015	79,857	85,214	71,846	63,947
United States of America	62,233	68,749	50,611	47,058	49,753
U.S.S.R.	31,681	18,588	20,305	27,368	40,104
Other	150,215	131,066	159,843	134,736	166,562
Total	**805,850**	**784,844**	**806,451**	**715,731**	**795,507**

(a) Excludes wool exported on sheepskins

World sheep numbers and wool production

The following table shows particulars of the woolled sheep numbers and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred, and carpet type wool for the latest available years.

In 1968–69 Australia produced 32 per cent of the world total of all types of wool. Other principal wool producers were New Zealand with 12 per cent of the world total, Argentina, 7 per cent, South Africa, 5 per cent, and United States of America, 4 per cent. Production in the U.S.S.R., China, and eastern European countries together amounted to 21 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type.

ESTIMATED WORLD WOOLLED SHEEP NUMBERS AND PRODUCTION OF WOOL 1966-67 TO 1968-69

(*Source* for countries other than Australia: Reports published by the Commonwealth Secretariat, London)

Country	Sheep numbers (million) 1966–67	1967–68	1968–69(a)	Wool production (million lb—greasy basis) 1966–67	1967–68	1968–69
Australia	**164**	**167**	**175**	**1,762**	**1,774**	**1,948**
New Zealand	60	61	60	709	728	732
Argentina	48	44	45	441	428	397
South Africa	37	37	39	292	304	317
United States of America	24	22	21	236	227	214
Uruguay	23	23	23	178	186	181
United Kingdom	29	28	27	132	127	119
U.S.S.R., China, Eastern Europe(b)	243	246	248	1,178	1,239	1,287
Other	316	319	321	924	920	914
World total	**942**	**946**	**958**	**5,852**	**5,933**	**6,109**
Type of wool—						
Apparel type—						
Merino				2,310	2,356	2,487
Crossbred				2,270	2,308	2,340
Carpet type				1,272	1,269	1,282

(a) Provisional. (b) This group comprises Albania, Bulgaria, China and Dependencies, Czechoslovakia, East Germany, Hungary, Outer Mongolia, Poland Romania, Tibet, and U.S.S.R.

Principal importing countries and sources of supply

The following table, prepared from information published by the Commonwealth Secretariat, furnishes, in respect of the principal importing countries, details of their imports of wool for 1968 together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured, except in the case of the United States of America, where estimated clean content of wool is quoted.

PRINCIPAL WOOL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1968

(*Source:* Information published by the Commonwealth Secretariat, London)

(Million lb)

Importing country	Quantity imported from(a)— Australia	New Zealand	Argentina	South Africa	Other countries	Total imports
Japan	518.3	49.8	23.4	42.4	13.1	647.1
United Kingdom	147.0	141.6	46.8	40.0	169.6	545.0
France	133.8	101.2	19.4	39.6	16.0	310.1
Italy	126.0	22.6	14.8	23.5	49.0	235.9
Belgium	92.8	49.0	17.7	11.4	34.1	205.0
Germany, Federal Republic of	83.6	35.3	20.4	34.8	51.7	225.8
United States of America(b)	59.2	77.8	42.5	17.5	51.6	248.6

(a) Actual weight of greasy and scoured wool. (b) Imports are in terms of estimated clean content of greasy and scoured wool. Actual weight of total United States of America imports was 330.5 million lb.

As a considerable transit trade exists between European countries, it must not be assumed that the whole of the imports recorded by these countries is retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom and Belgium.

Pastoral products: meat

Australian Meat Board

The Australian Meat Board, which was re-constituted under the Meat Industry Act 1964–1969, is the body responsible for controlling the external marketing of Australian beef, mutton and lamb. Powers and membership of the Board prior to 1964 are set out on page 801, Year Book No. 40. Following its reconstitution it consisted of five members representing meat producers, two representing meat exporters, one representing the Commonwealth Government, and an independent Chairman. The Meat Industry Act was amended in 1969 to provide for the appointment of an additional member to represent meat producers. The Board's primary function is to ensure that Australian meat exports are marketed in a manner which will safeguard the long-term interests of the Australian meat industry.

The Board regulates overseas marketing of Australian meat by means of an export licensing system. It has power of control over the kinds of meat that may be exported by licensed exporters to particular places, or to particular agents and representatives. The Board also has power to undertake measures to promote the sale and consumption of meat both in Australia and overseas, and it may purchase and sell meat in its own right for the purpose of market development. However, the exercise of this power is limited to activities aimed at meeting special marketing problems or circumstances which preclude the effective participation of private traders. The Board may also purchase and sell meat, with the approval of the Minister for Primary Industry, for the purpose of administering any international arrangements to which Australia may be a party.

Meat research schemes

In November 1965 the Commonwealth Parliament passed legislation providing for the extension of the cattle and beef research scheme to cover beef, mutton and lamb research. Details of the beef research scheme were set out on page 1050, Year Book No. 51. Under the new legislation the Cattle and Beef Research Committee was re-constituted as the Meat Research Committee, its powers and functions being similar to those of the former Committee extended to include mutton and lamb research. The Meat Research Committee consists of twelve members—seven meat producer representatives, the Chairman of the Australian Meat Board (Chairman), one representative from the universities engaged in meat research, the Commonwealth Scientific and Industrial Research Organization, the Australian Agricultural Council, and the Department of Primary Industry. The new Committee came into being in March 1966 and the Cattle and Beef Research Committee ceased to exist from that date.

The scheme is financed from the Livestock Slaughter Levy (*see* below). The Commonwealth makes a matching contribution on a $1 for $1 basis to meet expenditure on research. The research is conducted by such bodies as the universities, C.S.I.R.O., State Departments of Agriculture and the Bureau of Agricultural Economics.

The Minister for Primary Industry has approved a beef research programme of $1,835,000, and a mutton and lamb research programme of $919,600 for 1969–70.

The Livestock Slaughter Levy

The *Livestock Slaughter Levy Act* 1964–1966 imposed a levy on all cattle (over 200 lb dressed weight), sheep and lambs slaughtered within Australia for human consumption. These levies operated from 1 August 1964 and have replaced the charge imposed on meat exports and also subsumed the cattle levy for beef research purposes imposed in 1960 (*see* page 909, Year Book No. 51). In November 1968 legislation was passed amending the Act to provide for an additional levy to finance service and investigation activities relating to meat processing. The amended legislation (the *Livestock Slaughter Levy Act* 1964–68) now provides three elements in the levy for each class of livestock—an amount to finance meat research; an amount to finance the operations of the Australian Meat Board; and, from 1 January 1969 until 31 December 1971, an amount to finance service and investigation activities relating to meat processing. The first two elements are paid by producers while the third element is paid by meat processors.

Under the Act the total levy may not exceed 75.0c a head for cattle or 7.5c a head for sheep and lambs. The amount levied for research may not exceed 25.0c a head for cattle or 3.3c a head for sheep and lambs while the amount for service and investigation activities relating to meat processing is set for the period of its operation at 1.0c a head for cattle and 0.1c a head for sheep and lambs. The present operative rate for cattle is 33.0c (20.0c for research; 12.0c to the Australian Meat Board; 1.0c for service and investigation) and for sheep and lambs, 3.10c (1.75c for research; 1.25c to the Australian Meat Board; 0.10c for service and investigation).

United Kingdom long-term purchase arrangements

Details of the long-term meat contracts with the United Kingdom from 1939 to 1952 and of the Fifteen Year Meat Agreement (1952–67) are given on page 710, Year Book No. 41 and in earlier issues. In September 1953 the trade in meat between the United Kingdom and Australia reverted to private traders. The main features of the arrangements were given in Year Book No. 47, page 960. Details of minimum prices operating and deficiency payments received in recent years under private trading appear in Year Book No. 48 (page 973) and No. 50 (page 1068).

On 30 September 1967 the Fifteen Year Meat Agreement expired, and no new agreement has been negotiated. However, Australia still retains guaranteed duty-free entry for meat and a number of tariff preferences in the United Kingdom market under the provisions of the United Kingdom-Australia Trade Agreement.

Lamb Guarantee Scheme

Since the 1962–63 lamb export season the Australian Meat Board has guaranteed exporters a minimum price on all lambs 36 lb and under shipped to the United Kingdom. For the 1966–67 season the prices were set at 16.0c per lb and 14.5c per lb, and for 1967–68 and 1968–69, 17.0c per lb and 15.5c per lb. Prices set for the 1969–70 season are 18.0c per lb and 16.5c per lb. The higher guaranteed price for the initial period is aimed at stimulating early shipments of lamb, because normally the most opportune time for selling Australian lamb in the United Kingdom market is early in the export season. Any commitment by the Board is payable from moneys accrued in the Lamb Deficiency Payments Account under the Fifteen Year Meat Agreement.

United States-Australia Meat Agreement

In February 1964 the Governments of Australia and the United States concluded an agreement for the regulation of beef, veal and mutton exports from Australia to the United States with the object of promoting the orderly development of the trade in these classes of meat between the two countries. The agreement sought to preserve approximately the current pattern of trade in beef and mutton and to permit Australia to obtain a reasonable share of the expected market growth. Under the agreement Australia undertook to limit its exports of beef, veal and mutton to the United States to 242,000 tons in 1964. In the succeeding two years (1965 and 1966) exports were permitted to increase at a compound rate of 3.7 per cent. The agreement provides for a triennial review of the growth factor, the first of which was to take place before 1 October 1966, but no review has been held.

In August 1964 the United States Congress passed a Bill providing for the imposition of quotas on imports of beef and veal, mutton and goatmeat from all sources, for 1965 and subsequent years, if imports of these items are estimated by the United States Department of Agriculture to equal or exceed 110 per cent of a basic quantity. The basic quantity, 323,840 tons, is approximately the average of imports from 1959 to 1963. This quantity may be increased or decreased in any future calendar year by a percentage equal to that by which the United States average annual commercial production of beef and veal, mutton and goatmeat has changed since the base period 1959–1963. For this purpose the level of domestic production is the average of estimated commercial production for the year in which quotas may be applied and the two preceding years. An increase of 37.7 per cent in the basic quantity was set for 1970, providing for allowable imports of approximately 445,900 tons (441,100 tons in 1969) and an import ceiling, at which quotas would be established, of about 490,500 tons (485,200 tons in 1969). (Figures for earlier years are given in previous issues of the Year Book.) On the basis of the first official estimate of United States meat imports during 1970 the United States Secretary for Agriculture announced on 12 January 1970 that, as in 1969, it would not be necessary to invoke meat import quotas for 1970 as supplying countries had agreed to restrain shipments to 473,900 tons—16,600 tons below the point at which quotas would become operative. However, if a later quarterly estimate in 1970 indicated that the import ceiling would be equalled or exceeded, then quotas would be imposed. Australia's restraint level for 1970 is 235,400 tons compared with 225,000 tons in 1969.

Cattle slaughtered

CATTLE (INCLUDING CALVES) SLAUGHTERED: STATES AND TERRITORIES
1964-65 TO 1968-69
('000)

Year	*Slaughterings passed for human consumption*									*Total slaughterings including boiled down*
	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*	
1964–65 . .	2,157	1,879	1,960	275	327	174	59	13	6,844	6.902
1965–66 . .	1,780	1,829	1,888	277	315	154	69	11	6,323	6,371
1966–67 . .	1,455	1,706	1,677	265	301	170	67	10	5,650	5,701
1967–68 . .	1,447	1,713	1,664	245	333	172	74	10	5,656	5,731
1968–69 . .	1,417	1,514	1,823	220	366	178	80	10	5,608	5.672

Production of beef and veal

PRODUCTION OF BEEF AND VEAL (CARCASS WEIGHT): STATES AND TERRITORIES 1964-65 TO 1968-69

(Tons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65 . .	303,419	246,129	326,128	37,268	56,983	26,270	11,699	2,179	1,010,075
1965–66 . .	244,527	238,904	313,747	36,513	58,089	23,011	14,798	1,795	931,384
1966–67 . .	209,403	224,983	295,810	38,754	54,811	24.695	14,572	1,711	864,739
1967–68 . .	220,879	223,307	310,478	33,074	59,249	25,084	15,879	1,692	889,642
1968–69 . .	217,011	212,859	340,744	35,617	67,751	27,936	16,239	1,891	920,048

Consumption of beef and veal

The highest post-war consumption of beef and veal (including canned beef and veal) was 132.7 lb per head in 1956–57. With the buoyant overseas market for beef and the high prices ruling in Australia during the following four years, consumption per head fell substantially, and in 1960–61 amounted to only 88.3 lb. In 1968–69 consumption per head was 94.0 lb, of which 90.2 lb was carcass meat and 3.8 lb was canned meat (in terms of carcass equivalent).

PRODUCTION AND DISPOSAL OF BEEF AND VEAL (CARCASS WEIGHT) AUSTRALIA, 1964-65 TO 1968-69

Year	*Net change in stocks*	*Production*	*Exports (a)*	*For canning*	*Apparent consumption in Australia*	
					Total	*Per head per year*
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
1964–65 .	+ 6	1,010	457	48	499	99.2
1965–66 .	. .	931	412	44	476	92.6
1966–67 .	— 5	865	384	40	445	85.2
1967–68 .	— 6	890	381	38	478	89.7
1968–69 .	+12	920	384	34	490	90.2

(*a*) Includes carcass equivalent of boneless beef exported and all fresh and frozen meat shipped as ships' stores.

Exports of beef and veal

While beef and veal were previously shipped largely in carcass form, there has been in recent years a substantial increase in the amount of boneless beef exported. From 1958–59 to 1968–69 the quantity of boneless beef shipped exceeded that exported in carcass form. The trade in boneless beef has been developed principally with the United States of America. In 1968–69, the principal markets for Australian beef and veal exports were the United States (451,084,000 lb, valued at $173,332,000); Japan (33,022,000 lb, valued at $9,960,000); and the United Kingdom (30,889,000 lb, valued at $8,040,000).

EXPORTS OF FROZEN AND CHILLED BEEF AND VEAL(*a*): AUSTRALIA 1964-65 TO 1968-69

Year	*Exports of frozen and chilled beef*		*Exports of frozen veal*		*Exports of frozen and chilled beef and frozen veal*	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.
1964–65	679,989	192,404	27,919	7,958	707,908	200,363
1965–66	593,350	189,762	19,260	5,714	612,610	195,477
1966–67	562,330	192,321	15,889	5,922	578,219	198,243
1967–68	554,423	194,524	9,645	4,064	564,068	198,588
1968–69	555,986	207,292	8,389	3,681	564,375	210,973

(*a*) Actual weight shipped, not carcass equivalent.

PRODUCTION OF MEAT: AUSTRALIA

1921-22 TO 1968-69

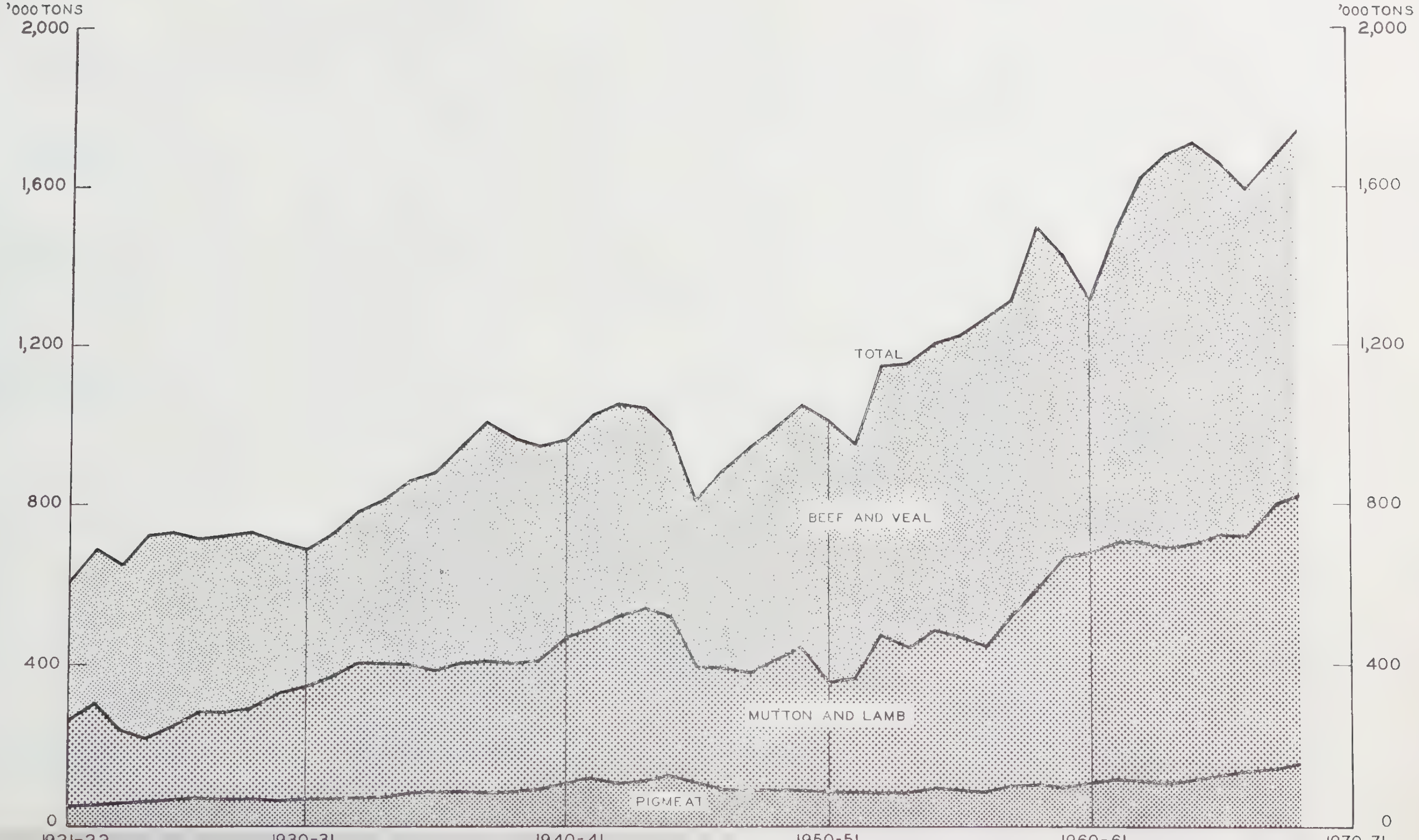


PLATE 44

Sheep slaughtered

SHEEP (INCLUDING LAMBS) SLAUGHTERED: STATES AND TERRITORIES 1964-65 TO 1968-69

('000)

Year	Slaughterings passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
1964–65 . .	11,739	12,543	2,933	3,100	2,056	987	4	111	33,472	33,587
1965–66 . .	11,192	13,332	2,769	3,474	2,535	1,164	2	92	34,560	34,696
1966–67 . .	9,989	13,160	2,154	3,358	2,580	1,159	2	93	32,496	32,578
1967–68 . .	12 099	14,999	2,491	4,019	3,173	1,125	..	103	38,008	38,164
1968–69 . .	12,950	12,882	2,724	2,977	3,808	1,241	..	130	36,712	36,803

Production of mutton and lamb

PRODUCTION OF MUTTON AND LAMB (CARCASS WEIGHT) STATES AND TERRITORIES, 1964-65 TO 1968-69

(Tons)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1964–65 . .	195,236	230,318	47,984	55,392	35,839	18,123	88	1,856	584,836
1965–66 . .	184,523	240,697	45,515	60,738	44,695	21,097	46	1,517	598,828
1966–67 . .	173,857	243,597	37,744	62,476	46,381	20,902	45	1,621	586,623
1967–68 . .	203,169	261,615	43,801	68,730	55,059	19,845	9	1,795	654,023
1968–69 . .	223,945	247,972	48,208	56,824	67,713	22,452	1	2,240	669,355

Consumption of mutton and lamb

In 1959–60 consumption of mutton and lamb, at 103 lb per head of population, exceeded that of beef and veal for the first time on record. Subsequently, it showed a continuous decline until 1965–66, when it fell to 82.8 lb per head. Since then this downward trend has been reversed and in 1968–69 consumption per head reached 90.3 lb, exceeding that of beef and veal by 0.1 lb per head.

PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (CARCASS WEIGHT): AUSTRALIA, 1964-65 TO 1968-69

Year	Net change in stocks ('000 tons)	Production ('000 tons)	Exports (a) ('000 tons)	For canning ('000 tons)	Apparent consumption in Australia	
					Total ('000 tons)	Per head per year (lb)
MUTTON						
1964–65 . .	+5	361	116	10	231	45.9
1965–66 . .	+4	390	141	9	236	46.0
1966–67 . .	−5	350	132	7	216	41.3
1967–68 . .	+3	412	180	8	222	41.7
1968–69 . .	+2	366	136	7	222	40.9
LAMB						
1964–65 . .	+1	224	26	..	197	39.2
1965–66 . .	+3	209	18	..	189	36.8
1966–67 . .	−3	237	18	..	222	42.5
1967–68 . .	..	242	11	..	230	43.2
1968–69 . .	+1	303	34	..	268	49.4

(a) Includes carcass equivalent of boneless mutton exported.

Exports of frozen mutton and lamb

EXPORTS OF FROZEN MUTTON AND LAMB(*a*): AUSTRALIA, 1964-65 TO 1968-69

Year	*Exports of frozen mutton*		*Exports of frozen lamb*		*Exports of frozen mutton and lamb*	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.	'000 lb	$'000 f.o.b.
1964–65	162,964	29,517	54,132	10,832	217,096	40,349
1965–66	176,424	37,242	35,574	8,176	211,998	45,417
1966–67	177,359	35,339	33,161	7,979	210,520	43,318
1967–68	232,317	44,141	20,336	5,546	252,653	49,687
1968–69	167,564	32,213	65,004	13,216	232,568	45,429

(*a*) Actual weight shipped, not carcass equivalent.

In 1968–69 the principal buyers of Australian frozen mutton and lamb were the United States of America (64,378,000 lb, valued at $15,818,000); Japan (51,260,000 lb, valued at $8,669,000); Canada (50,185,000 lb, valued at $9,907,000); and the United Kingdom (39,250,000 lb, valued at $6,509,000).

Consumption of meat and meat products

The apparent consumption of meat (including cured and canned meat) and edible offal per head of population in Australia is shown in the table below for the years 1964–65 to 1968–69.

MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL AVAILABLE FOR CONSUMPTION: AUSTRALIA, 1964-65 TO 1968-69

(lb per head per year)

Year	*Beef and veal(a)*	*Mutton (a)*	*Lamb(a)*	*Pork(a)*	*Offal*	*Canned meat(b)*	*Bacon and ham(c)*	*Carcass equivalent of meat and meat products (d)*
1964–65	99.2	45.9	39.2	11.8	12.3	4.6	7.5	225.0
1965–66	92.6	46.0	36.8	13.3	11.5	4.5	7.6	216.4
1966–67	85.2	41.3	42.5	13.4	11.0	5.2	8.1	210.3
1967–68	89.7	41.7	43.2	14.6	11.4	4.8	7.7	217.4
1968–69	90.2	40.9	49.4	16.2	11.2	4.9	7.8	224.8

(*a*) Carcass weight. (*b*) Canned weight. (*c*) Cured carcass weight. (*d*) Includes offal.

Other pastoral products

Tallow

Details of tallow consumption are collected from the principal factories using tallow. Recorded usage of inedible tallow in factories classified to industry sub-classes industrial and heavy chemicals and acids, and soap and candles, for the five years 1963–64 to 1967–68 was as follows: 1963–64, 1,077,000 cwt; 1964–65, 1,157,000 cwt; 1965–66, 1,061,000 cwt; 1966–67, 1,007,000 cwt; 1967–68, 880,000 cwt. These figures are, however, deficient to the extent that no allowance has been made for small unrecorded amounts used in other types of establishments. Details of edible tallow consumed in factories are not available.

Particulars of exports of edible and inedible tallow of Australian origin are shown in the following table for the five years 1964–65 to 1968–69.

TALLOW: EXPORTS, AUSTRALIA, 1964-65 TO 1968-69
(cwt)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Edible . . .	96,611	51,869	244,582	88,465	201,847
Inedible . .	1,846,543	1,243,684	1,767,130	1,654,071	2,035,529
Total . .	**1,943,154**	**1,295,553**	**2,011,712**	**1,742,536**	**2,237,376**

Overseas trade in hides and skins

The value of cattle and horse hides, sheep and other skins, and skin pieces sent overseas during 1968–69 amounted to $76,855,000, compared with a total of $63,731,000 in 1967–68 and $87,710,000 in 1966–67.

Of the total exports of sheepskins with wool during 1968–69, amounting to 216,182,000 lb valued at $55,784,000, 133,083,000 lb valued at $33,350,000 (60 per cent of total value) were shipped to France, 41,970,000 lb valued at $12,478,000 (22 per cent) to Italy, and 10,505,000 lb valued at $2,509,000 (4 per cent) to Yugoslavia. In the previous year France received 56 per cent (by value) of all sheepskin with wool exported, Italy 29 per cent and Yugoslavia 5 per cent. The exports of sheepskins with wool during each of the years 1964–65 to 1968–69 were as follows.

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA
1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Number . .	'000	27,248	28,952	27,578	29,757	30,473
Value . .	$'000	59,621	63,042	62,074	45,620	55,784

In 1968–69 a total of 1,634,000 sheepskins without wool were exported, valued at $744,000. Of these, sheepskins without wool to the value of $161,000 (22 per cent) were shipped to the United States of America, $150,000 (20 per cent) to France and $116,000 (16 per cent) to Spain.

The export trade in cattle hides and calfskins during 1968–69 was distributed among the main importing countries as follows: Japan, $7,841,000, the Federal Republic of Germany, $1,844,000, and Italy, $1,776,000. The total quantity exported was 118,969,000 lb, valued at $17,460,000.

The exports of furred skins in 1968–69 were valued at $1,937,000, of which kangaroo and wallaby skins constituted $1,209,000 and rabbit and hare skins $547,000. In 1967–68 they accounted for $1,180,000 and $534,000 respectively, out of a total of $1,845,000. The skins were shipped principally to the United States of America, Italy, the Federal Republic of Germany and the United Kingdom; the values shipped to each in 1968–69 being $1,187,000, $208,000, $172,000, and $159,000 respectively.

The quantity of cattle hides, including calfskins, imported into Australia during the year 1968–69 amounted to 2,347,000 lb, valued at $503,000. The chief sources of supply were New Zealand and the United States of America.

OTHER RURAL INDUSTRIES: DAIRYING, PIG, POULTRY AND BEE-FARMING

The dairying industry

The introduction of cattle into Australia and the early history of the dairying industry are treated in some detail in earlier issues of the Year Book. Australian dairy cattle have shown steady improvement in quality, as demonstrated by yield, over the years. This is attributable to improved breeding, associated with herd recording, better feeding, resulting from the use of improved pastures and better farming methods, arising from the development of modern farm machinery and the application of the results of research.

The Australian dairying industry is conducted under conditions ranging from tropical to temperate and Mediterranean type climates, and in general, is confined to the coastal and near coastal regions where rainfall and topography are favourable. These conditions are found in parts of the eastern, southern and south-western coasts. Inland districts include the lower north-east of Victoria, the south-western slopes of New South Wales, the fertile Darling Downs in Queensland, and the irrigated districts of the Riverina in New South Wales and northern Victoria.

The manufacturing and processing sections of the industry are well advanced technologically and certain techniques and equipment developed in Australia are now being adopted overseas. State Agricultural Departments give advice on approved methods of production and inspect animals, buildings and marketable produce, to ensure that the latest advances in technology are passed on to the farmer and that hygiene standards are maintained at a high level.

Marketing of dairy products

The export trade is regulated by the terms of the Commonwealth *Customs Act* 1901–1967 and the Commonwealth *Commerce (Trade Descriptions) Act* 1905–1966 and regulations thereunder. This legislation requires that the true trade descriptions, etc., be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

Details of the *Dairy Produce Export Control Act* 1924–1966 and of the Australian Dairy Produce Board constituted under it were given in earlier issues of the Year Book (*see* No. 48, pages 999–1000). The administrative expenses of the Australian Dairy Produce Board and other sundry expenditure were met from the proceeds of a levy imposed by the *Dairy Produce Export Charges Act* 1964 (*see* Year Book No. 51, page 1070). In 1965 this Act, together with the *Dairy Produce Levy Act* 1958, was replaced by the *Butterfat Levy Act* 1965–1966 (*see* page 827).

Equalisation schemes

Reference is made to the butter and cheese equalisation schemes in Year Book No. 48, pages 998–9. Particulars of the returns realised on local and overseas sales and of the average equalisation rate for the years ended June 1965 to 1970 are given on page 834 of this issue. Details are also given on page 833 of the wholesale prices of butter and cheese for home consumption as determined by the Commonwealth Dairy Produce Equalisation Committee Ltd.

An equalisation scheme for casein similar to that for butter and cheese has been operated since 1952 by the Commonwealth Dairy Produce Equalisation Committee Ltd. Average realisations per cwt under the scheme were $17.381 in 1964–65, $24.918 in 1965–66, $23.556 in 1966–67, 24.573 in 1967–68, and $22.235 in 1968–69. For 1969–70, the initial rate had been set at $17.000 but was subsequently raised to $20.000 per cwt.

Commonwealth bounties and stabilisation plans

Butter and cheese. Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Commonwealth Government has provided bounties on milk supplied for the manufacture of butter and cheese. Bounties were paid on a seasonal basis prior to 1 April 1946, but from that date have been on a flat rate basis. Bounties are distributed by the Commonwealth Dairy Produce Equalisation Committee Ltd, through factories, to milk producers by payments on butter and cheese manufactured. Details of the three five-year stabilisation plans which operated up to 30 June 1962, will be found in Year Book No. 49, page 1084. Information regarding the plan which operated during the five years ended 30 June 1967 appears in Year Book No. 52, page 961.

A new five-year stabilisation plan came into operation on 1 July 1967. All the features of the previous plan have been retained. The fixed bounty of $27,000,000 payable in each year of the plan on butter, cheese and butterfat products containing 40 per cent or more butterfat is continued.

The underwriting of final minimum equalised returns on butter and cheese, each year, is also continued. Returns to producers which were underwritten at 33c per lb on commercial butter each year since the inception of the underwriting arrangement in 1958 were raised to 34c per lb for the 1967–68 season and maintained at that level for 1968–69 and 1969–70.

Amounts realised on exports of butter and cheese were, in 1948–49 and 1949–50, in excess of the f.o.b. equivalent of the then guaranteed return and were credited to the Dairying Industry Stabilisation Fund, which was established in July 1948 for the purpose of stabilising returns from exports. During 1951–52 the Stabilisation Fund met the deficiency in respect of all exports which did not earn sufficient to meet the basic return to the factory. From 1 July 1952 to 30 June 1957 it was available to the industry to be used, in whatever manner it considered desirable, to make good any deficiency in respect of all exports other than the 20 per cent provided for under the Commonwealth Government's Five-year Stabilisation Plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Primary Industry, and this amendment was later extended by the *Dairying Industry Act* 1967 to the present time. The amount standing to the credit of the Dairying Industry Stabilisation Fund at 30 June 1969 totalled approximately $4,983,000. The major portion of the fund represents capital and other investments in milk recombining plants now established or under construction by the Board in Bangkok, Cambodia, Djakarta and Manila.

Processed milk products. Bounty on milk supplied for the manufacture of processed milk products was also payable from 1942 until 30 June 1948, and again from 1 July 1949 to 30 June 1952. The Commonwealth Government provided, under the *Processed Milk Products Bounty Act* 1968, for the payment of a maximum amount of $800,000 as a bounty on exports of processed milk products in 1967–68. The bounty is to continue under present legislation until 30 June 1972, the maximum amount available being $800,000 per annum.

Whole milk. In addition to the bounties referred to above, the Commonwealth Government subsidised the production of whole milk consumed directly from 1943–44 to 1948–49. Details of the amounts distributed during each year will be found in Year Book No. 38, page 1031.

Extension, research and promotion of the dairying industry

Dairy Industry Extension Grant. An annual grant of $500,000, to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Commonwealth Government for the five years from 1 July 1948. The grant was renewed at the same level until 30 June 1963 when it was increased to $700,000 per annum. On 1 July 1966 the Dairy Industry Extension Grant was incorporated in the Commonwealth Extension Services Grant, and assistance to the State agricultural departments for extension services to the dairying industry will be maintained from funds from this source until 1970–71 at least.

Dairy industry research and sales promotion. At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems. The legislation provided for a statutory levy on the manufacture of butter and cheese (the Dairy Produce Levy) which was initially set at rates of 0.104c per lb for butter and 0.052c per lb for cheese, the proceeds being divided equally between research and sales promotion. The rates of levy operative from November 1959 were 0.156c per lb for butter and 0.078c per lb for cheese, of which two-thirds was allocated to sales promotion and one-third to research.

In August 1964 the legislation was amended to include butter powder, at the same rates as for butter, and butteroil and ghee at 0.065c per lb for research and 0.130c per lb for sales promotion. In 1965 the Dairy Produce Levy Act was repealed and replaced by the *Butterfat Levy Act* 1965–1966 which provides for the amalgamation of the three levies into one levy on butterfat used in the manufacture of butter, cheese and related products. The maximum rate of levy in the Act is 60 cents per cwt of butterfat, and the prescribed rate operative from 1 September 1970 is 57 cents per cwt (24 cents for promotion, 23 cents for administration and overseas market development, and 10 cents for research).

The Commonwealth Government agreed to contribute one half of the costs incurred on approved projects included in the programme of research, with a maximum contribution of $1 for $1 against funds raised by way of levy and allocated to research. The sales promotion programme is financed solely by the levy. The following table lists the amounts of levies collected for research and sales promotion during the five years 1964–65 to 1968–69.

BUTTERFAT LEVY: AMOUNTS COLLECTED FOR RESEARCH AND SALES PROMOTION, 1964-65 TO 1968-69

($)

	1964–65(a)	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Research(*b*) . . .	262,800	310,200	406,100	363,700	367,720
Sales promotion . .	543,000	823,600	891,400	804,300	811,860
Total collected(*b*)	**805,800**	**1,133,800**	**1,297,500**	**1,168,000**	**1,179,580**

(*a*) Collected under Dairy Produce Levy Act. (*b*) Excludes amounts contributed by the Commonwealth Government.

The scheme is administered by the Australian Dairy Produce Board, which, in respect of research, is advised by a statutory committee, the Dairy Produce Research Committee.

Cattle for milk production

DAIRY BREED BULLS, AND COWS AND HEIFERS USED OR INTENDED FOR PRODUCTION OF MILK OR CREAM, 31 MARCH 1965 TO 1969

		Cows and heifers used or intended for production of milk or cream for sale			
			Heifers		
At 31 March	*Bulls dairy breed(a)*	*Cows (in milk and dry)*	*One year and over(b)*	*Under one year*	*House Cows and heifers(c)*
1969—					
New South Wales	15,229	604,256	150,920	117,705	84,771
Victoria	37,103	1,209,218	358,706	317,325	25,172
Queensland	12,721	497,294	121,918	88,098	34,763
South Australia	5,536	137,756	47,274	34,188	6,802
Western Australia	2,739	97,122	46,369	27,709	7,533
Tasmania	3,221	152,894	43,257	38,987	5,042
Northern Territory	70	624	141	77	125
Australian Capital Territory	32	1,471	196	201	340
Australia	**76,651**	**2,700,635**	**768,781**	**624,290**	**164,548**
1968	81,512	2,793,650	754,587	689,038	169,384
1967	87,235	2,880,681	795,771	671,957	179,675
1966	90,009	2,908,372	822,887	681,033	185,589
1965	95,012	3,011,832	843,212	690,267	202,138

(*a*) Used or intended for service; excludes bull calves (under 1 year). (*b*) Springing (within 3 months of calving) and other. (*c*) Kept primarily for rural holdings' own milk supply.

For particulars relating to dairy cattle numbers up to 1963 *see* page 1078, Year Book No. 50.

A map showing the distribution of dairy cattle in Australia at 31 March 1963 appears facing page 1082, Year Book No. 50.

Milking machines

MILKING MACHINES ON RURAL HOLDINGS: NUMBER OF UNITS(*a*) STATES AND TERRITORIES, 1965 TO 1969

At 31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1965	42,209	101,994	44,074	19,135	10,055	13,806	23	93	231,389
1966	41,796	105,003	42,199	18,833	9,780	15,894	26	94	233,625
1967	41,433	108,664	40,878	18,143	9,664	16,414	35	94	235,325
1968	40,862	109,137	38,208	18,399	9,317	16,968	40	91	233,022
1969	39,557	112,618	35,401	17,908	9,036	17,057	24	97	231,698

(*a*) The number of units indicates the number of cows that can be milked simultaneously, i.e. the cow capacity of installed milking machines.

Production of milk

The quantity of milk produced by a dairy cow can be as high as 1,000 gallons a year, and varies greatly with breed, locality and season. For all dairy cows and for all seasons for Australia prior to 1916 production averaged considerably less than 300 gallons per annum. Largely owing to an improvement in the quality of the cattle and the increased application of scientific methods the 300 gallon average has been exceeded in each year since 1924. In the last five years an average of 498 gallons per cow per annum has been obtained. In 1968-69 the average yield was 525 gallons. The annual average yields per cow shown in the following table are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of cows in milk and dry and house cows at 31 March of that year and of the preceding year. They are, in effect, based on the approximate number of cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year, but it may be accepted as sufficiently reliable to show the general trend.

AVERAGE MILK PRODUCTION PER COW: STATES AND TERRITORIES
1964-65 TO 1968-69

(Gallons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	347	613	306	614	490	589	248	547	467
1965–66	378	616	316	602	508	578	234	524	483
1966–67	423	647	366	624	480	591	268	548	521
1967–68	416	596	354	590	502	581	232	465	497
1968–69	393	663	306	708	546	647	203	486	525

In the following table particulars of the production of whole milk in the various States and Territories are shown for the years 1964–65 to 1968–69. In 1968–69, the production of whole milk in Australia reached a level of 1,531 million gallons, which was 5 per cent below the record of 1,605 million gallons attained in 1966–67. Victoria is the principal milk-producing State, and in 1968–69 the output from that State, 816 million gallons, represented 53 per cent of total production. Output from New South Wales in 1968–69 was 279 million gallons (18 per cent of the total) and that of Queensland 172 million gallons (11 per cent). Production in the remaining States and Territories accounted for 18 per cent.

TOTAL PRODUCTION OF WHOLE MILK: STATES AND TERRITORIES
1964-65 TO 1968-69

('000 gallons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65 . .	291,931	745,896	230,289	102,330	61,883	87,343	98	1,094	1,520,864
1965–66 . .	300,740	750,915	221,086	98,398	61,865	87,890	92	1,026	1,522,013
1966–67 . .	322,995	796,673	238,134	98,727	55,611	91,418	97	1,070	1,604,725
1967–68 . .	310,056	734,203	217,202	88,822	55,411	90,793	97	900	1,497,484
1968–69 . .	278,930	815,791	171,686	102,808	58,222	102,164	97	898	1,530,597

UTILISATION OF WHOLE MILK: STATES AND TERRITORIES, 1968-69

('000 gallons)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust*
Milk used for—									
Butter . .	111,230	580,749	87,245	28,331	28,464	72,546	..	..	908,565
Cheese . .	10,386	70,780	17,535	42,444	4,304	12,837	..	..	158,286
Processed milk products .	26,922	61,365	66,906	..	655	16,781	..	..	98,945
Other purposes .	130,393	102,897		32,033	24,799		97	898	364,801
Total .	**278,930**	**815,791**	**171,686**	**102,808**	**58,222**	**102,164**	**97**	**898**	**1,530,597**

In 1968–69, 59.4 per cent of the total milk supply was used for butter, 10.3 per cent for cheese, 6.5 per cent for processed milk products, and 23.8 per cent for other purposes.

MILK PRODUCTION AND UTILIZATION: AUSTRALIA

1916 TO 1968-69

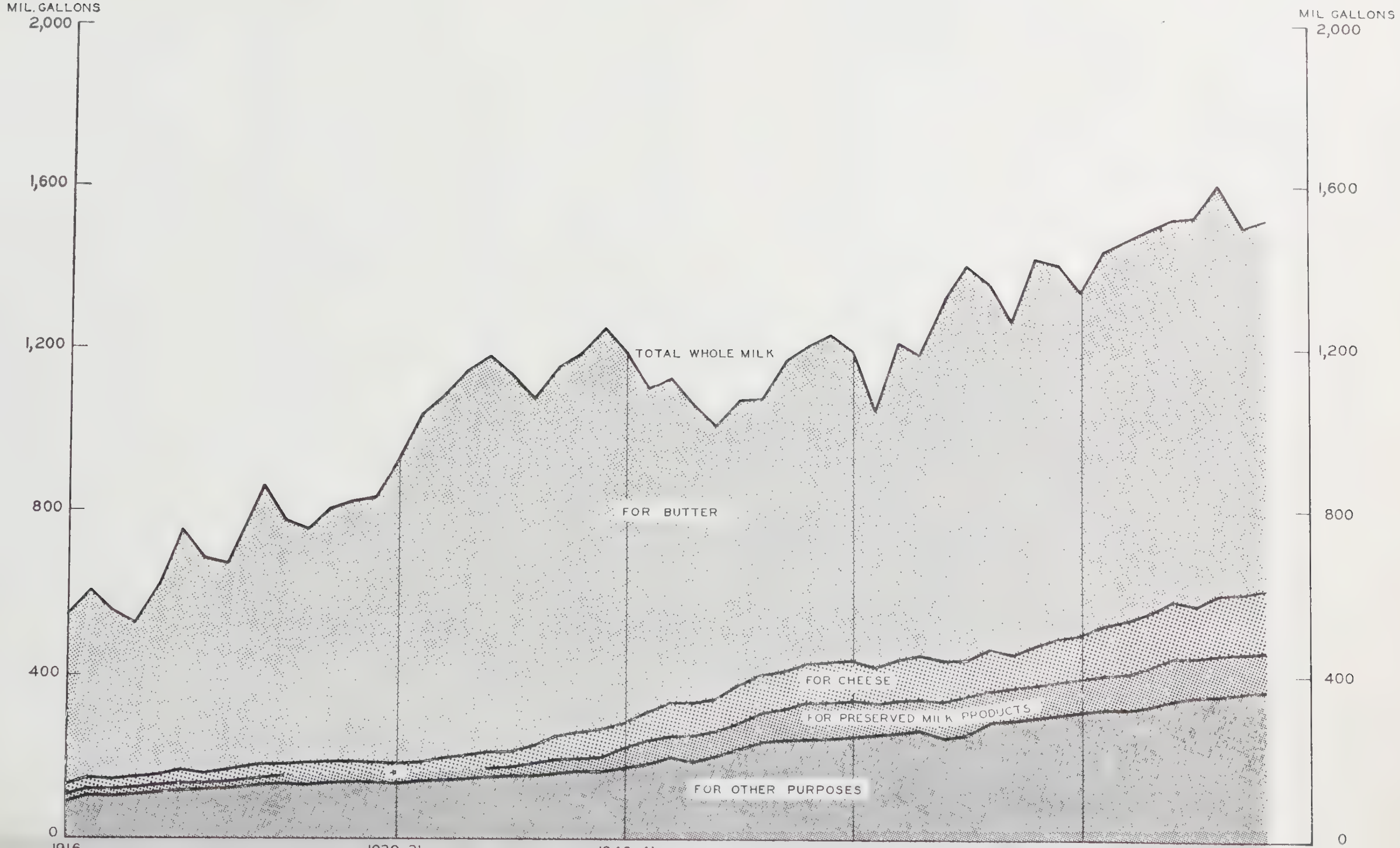


PLATE 45

PRODUCTION AND UTILISATION OF WHOLE MILK: AUSTRALIA
1964-65 TO 1968-69
('000 gallons)

Year	Total production	Quantity used for— Factory butter	Factory cheese	Processed milk products(a)	Other purposes(b)
1964–65	1,520,864	938,796	135,733	103,315	343,020
1965–66	1,522,013	949,270	126,575	99,221	346,947
1966–67	1,604,725	1,011,000	146,547	99,502	347,676
1967–68	1,497,484	892,898	149,444	98,555	356,587
1968–69	1,530,597	908,565	158,286	98,945	364,801

(a) Quantities of milk used to produce two or more products (for example, initially as full cream milk and subsequently as skim milk) are counted once only. (b) Principally fluid milk for domestic purposes. Includes milk used for farm production of butter and cheese.

Production of butter, cheese and processed milk products

The establishment of large central butter factories, either on a co-operative or independent basis, has resulted in a considerable reduction in the cost of manufacture. The product is also of a more uniform quality, and whereas formerly the average quantity of milk used per pound of hand-made butter was about three gallons, factory butter requires only about two gallons. In addition, subsidy payments by the Commonwealth Government are made only on factory-produced butter. As a result the production of farm-made butter has declined to negligible proportions. A similar position exists in the cheese-making industry.

In 1967–68 factories classified to industry sub-classes Butter factories, Cheese factories, and Condensed and processed milk factories numbered 315 and were distributed among the States as follows: New South Wales, 69; Victoria, 109; Queensland, 60; South Australia, 38; Western Australia, 16; and Tasmania, 23. More details regarding numbers of factories, output, etc., are given in the chapter Manufacturing Industry. Statistics of the number of factories in 1968–69 are not yet available.

Factory production of butter in 1968–69 was 439,220,000 lb. This was 49,997,000 lb (10.2 per cent) below the record of 489,217,000 lb attained in 1966–67.

BUTTER PRODUCTION IN FACTORIES: STATES, 1964-65 TO 1968-69
('000 lb)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1964–65	67,081	248,506	73,546	17,215	17,387	31,143	454,878
1965–66	73,901	250,680	70,189	16,160	18,133	31,370	460,433
1966–67	86,392	266,907	74,375	15,092	14,394	32,056	489,217
1967–68	71,281	241,240	63,546	12,133	13,248	30,865	432,313
1968–69	52,172	280,206	43,083	14,507	13,937	35,315	439,220

Factory production of cheese in 1968–69 reached a record level of 164,838,000 lb, which was 9,453,000 lb (6.0 per cent) more than the previous record of 1967–68.

CHEESE PRODUCTION IN FACTORIES: STATES, 1964-65 TO 1968-69
('000 lb)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1964–65	9,785	60,975	19,095	38,836	4,051	5,265	138,008
1965–66	9,786	58,158	17,773	36,281	2,712	6,590	131,300
1966–67	12,023	67,907	23,071	38,598	3,807	8,427	153,834
1967–68	12,074	73,570	22,181	32,773	4,373	10,414	155,385
1968–69	12,201	75,256	17,871	42,218	4,458	12,834	164,838

FACTORY PRODUCTION OF CHEESE BY VARIETIES: AUSTRALIA 1964-65 TO 1968-69

('000 lb)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Fetta	870	969	1,042	1,124	n.a.
Cheddar	127,507	119,176	137,657	138,655	
Cottage	1,070	1,561	1,876	2,215	
Edam	417	436	531	691	
Blue Vein	115	106	187	102	
Grating	4,599	6,148	8,975	9,790	
Soft	693				
Other	2,737	2,904	3,566	2,808	
Total cheese	**138,008**	**131,300**	**153,834**	**155,385**	**164,838**

Processed milk products are manufactured mainly in Victoria, which produced 62 per cent of the total (in terms of whole milk equivalent) in 1968–69. New South Wales accounted for 27 per cent and the remaining States for 11 per cent.

PRODUCTION OF PROCESSED MILK PRODUCTS: AUSTRALIA, 1964-65 TO 1968-69

('000 lb)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Condensed, concentrated and evaporated milk—					
Full cream—					
Sweetened(*a*)	102,479	73,985	61,510	47,316	40,437
Unsweetened	89,390	88.482	91,700	87,946	98,658
Skim	21,936	21,196	24,974	18,932	18,040
Ice cream mix (liquid)	10,810	15,198	15,422	9,065	7,245
Infants', invalid and health beverages—					
Infants' milk powder	12,629	13,723	14,535	16,233	17,601
Other(*b*)	32,550	31,557	34,813	32,001	36,981
Casein	39,768	50,712	45,812	44,815	64,963
Powdered milk—					
Full cream—					
Spray	41,561	42,888	46,276	46,125	53,083
Roller	2,108	2,172	1,742	1,147	1,341
Skim—					
Without added ingredients—					
Spray	82,624	84,018	162,351	161,071	123,395
Roller	14,704	14,466	13,153	18,606	14,679
With added ingredients—					
Baker's powder	5,264	5,577	5,401	5,937	5,765
Other	5,231	8,281	7,679	10,415	13,076
Buttermilk or mixed skim and buttermilk—					
Spray	4,702	8,345	12,829	15,836	14,821
Roller	16,183	17,555	19,689	17,756	19,735
Total powdered milk	*172,378*	*183,301*	*269,120*	*276,893*	*245,893*

(*a*) Includes 'coffee and milk'. (*b*) Includes malted milk and milk sugar (lactose).

Wholesale prices of butter and cheddar cheese in Australia

Details of prices operating in each of the States since 1 July 1956 are shown in the following table. The prices included are those determined by the Commonwealth Dairy Produce Equalisation Committee Ltd for choicest grade bulk butter and cheddar cheese.

WHOLESALE PRICES OF BUTTER AND CHEDDAR CHEESE: AUSTRALIA
($ per cwt)

Date from which prices became effective	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*
Butter—						
1 July 1956	46.67	46.67	46.55	46.43	46.67	46.67
1 July 1958	48.53	48.53	48.42	48.42	48.53	48.53
1 July 1960	50.17	50.17	50.05	50.17	50.17	50.17
19 June 1964	51.80	51.80	51.80	51.80	51.80	51.80
14 February 1966	52.08	52.08	52.08	52.08	52.08	52.08
31 March 1969	54.60	54.60	54.60	54.60	54.60	54.60
Cheddar cheese—						
1 July 1956	28.23	28.23	28.23	28.12	28.23	28.23
1 July 1958	29.17	29.17	29.17	29.17	29.17	29.17
1 July 1960	29.63	29.63	29.63	29.63	29.63	29.63
19 June 1964	30.57	30.57	30.57	30.57	30.57	30.57
14 February 1966	30.80	30.80	30.80	30.80	30.80	30.80
7 November 1966	33.04	33.04	33.04	33.04	33.04	33.04

Local consumption of butter and cheese

Following the cessation of butter rationing after the 1939–45 War, consumption per head rose to 31.2 lb in 1951–52. However, in later years it gradually declined, and in 1968–69, at 21.1 lb per head, it reached its lowest level since the war. Consumption of cheese per head rose steadily in recent years and in 1965–66 reached a record level of 7.9 lb. There was a slight decline thereafter, however in 1968–69 it again attained the record level of 7.9 lb per head.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE
AUSTRALIA, 1964-65 TO 1968-69

Year	*Change in stocks(a)* ('000 lb)	*Factory production* ('000 lb)	*Exports(b)* ('000 lb)	*Apparent consumption in Australia* — *Total* ('000 lb)	*Apparent consumption in Australia* — *Per head per year* (lb)
BUTTER					
1964–65	−16,265	454,878	216,875	254,268	22.5
1965–66	+19,398	460,433	190,607	250,428	21.8
1966–67	− 872	489,217	234,611	255,478	21.8
1967–68	− 3,068	432,313	177,331	258,050	21.6
1968–69	+11,471	439,220	170,709	257,040	21.1
CHEESE					
1964–65	− 7,777	138,008	61,087	84,699	7.5
1965–66	−16,916	131,300	56,964	91,251	7.9
1966–67	+ 5,248	153,834	57,423	91,162	7.8
1967–68	−10,527	155,385	76,249	89,663	7.5
1968–69	+12,375	164,838	56,494	95,968	7.9

(*a*) Balance figure (includes imports). (*b*) Includes ships' stores; figures for butter include ghee and butter concentrate expressed as butter.

Average returns from butter and cheddar cheese sold

The table below shows rates realised on local, interstate and overseas sales and the average equalisation and subsidy rates in operation for the years ended June 1965 to 1970.

BUTTER AND CHEDDAR CHEESE: RATES REALISED ON SALES, AVERAGE EQUALISATION RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRYING INDUSTRY ACTS, 1964-65 TO 1969-70

(*Source:* Commonwealth Dairy Produce Equalisation Committee Ltd)

($ per cwt)

	Rates realised on sales						
Year	*Intrastate*	*Interstate*	*Manufacturing*	*Overseas*	*Average equalisation rate*	*Rate of subsidy*	*Rate of overall return to manufacturer*
Butter—							
1964–65 . .	50.08	48.18	31.63	34.08	42.25	6.09	48.33
1965–66 . .	50.06	47.47	32.26	30.63	40.27	6.01	46.28
1966–67 . .	49.88	47.46	31.97	29.87	39.38	5.66	45.04
1967–68 . .	(*a*)	(*a*)	(*a*)	(*a*)	(*b*)39.50	6.31	(*b*)45.81
1968–69 . .	(*a*)	(*a*)	(*a*)	(*a*)	(*b*)38.75	(*b*)6.02	(*b*)44.77
1969–70 . .	(*a*)	(*a*)	(*a*)	(*a*)	(*b*)38.00	(*b*)5.55	(*b*)43.55
Cheddar cheese—							
1964–65 . .		29.32		22.11	26.00	2.23	28.23
1965–66 . .		29.43		21.38	25.99	2.36	28.34
1966–67 . .		31.24		21.52	27.01	2.04	29.05
1967–68 . .		(*a*)		(*a*)	(*b*)25.04	2.38	(*b*)27.42
1968–69 . .		(*a*)		(*a*)	(*b*)24.70	(*b*)2.87	(*b*)27.57
1969–70 . .		(*a*)		(*a*)	(*b*)24.00	(*b*)2.65	(*b*)26.65

(*a*) Not yet available. (*b*) Interim rates.

The distribution between factory and farm of the overall return to manufacturers for butter is shown in the following table.

COMMERCIAL BUTTER: AVERAGE OVERALL RETURNS AUSTRALIA, 1964-65 TO 1969-70

(*Source:* Commonwealth Dairy Produce Equalization Committee Ltd)

(Cents per lb)

Year	*Rate of overall return to manufacturer*	*Estimated manufacturing cost*	*Return to dairy farmer*
1964–65	43.154	4.449	38.705
1965–66	41.324	4.449	36.875
1966–67	40.216	4.583	35.633
1967–68	40.904	4.583	36.321
1968–69	(*a*)39.969	4.750	35.219
1969–70	(*a*)38.911	4.911	34.000

(*a*) Interim rates.

Overseas trade in dairy products

The production of butter and cheese in Australia is considerably in excess of local requirements, and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon seasonal conditions.

Exports of butter in 1968–69 amounted to 140.9 million lb, compared with 148.6 million lb in 1967–68. Exports of cheese in these years were 56.1 million lb and 76.0 million lb respectively. The principal importing country for Australian butter in 1968–69 was the United Kingdom, accounting for 82.5 per cent of total exports. In 1968–69 Japan replaced the United Kingdom as the principal importing country for Australian cheese with 30.8 per cent of total shipments.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to supervision, inspection and examination by officers appointed for that purpose. These commodities are graded according to quality, which has been fixed by regulation as follows: flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, will be found in *Rural Industries*, 1967–68, Bulletin No. 6.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA, 1966-67 TO 1968-69

Grade	*Quantity ('000 lb)*			*Percent*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
			BUTTER(*a*)			
Choicest quality	164,364	136,312	145,577	77.3	80.2	86.1
First quality	37,126	25,581	16,923	17.5	15.1	10.0
Second and pastry quality(*b*)	11,111	8,021	6,658	5.2	4.7	3.9
Total	**212,601**	**169,914**	**169,158**	**100.0**	**100.0**	**100.0**
			CHEESE			
Bulk cheddar—						
Choicest quality	10,500	19,967	29,036	16.7	26.2	35.0
First quality	34,886	40,214	31,339	55.5	52.7	37.8
Second quality(*b*)	1,295	1,972	2,721	2.1	2.6	3.3
Other cheese	16,194	14,154	19,839	25.8	18.5	23.9
Total	**62,875**	**76,307**	**82,935**	**100.0**	**100.0**	**100.0**

(*a*) Includes unsalted. (*b*) Includes rejected.

Exports of butter, cheese and other milk products of Australian origin are shown in the following table.

EXPORTS OF DAIRY PRODUCTS: AUSTRALIA, 1966-67 TO 1968-69

	Quantity ('000 lb)			*Value ($'000 f.o.b.)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Butter(*a*)	205,550	148,634	140,865	55,094	39,114	34,745
Cheese(*b*)—						
Processed(*c*)	12,633	11,049	16,922	4,995	4,352	6,070
Other—						
Cheddar and epicure cheddar	30,893	55,479	28,821	6,707	11,085	5,417
Parmesan (incl. parmigiano and reggiono)	62	129	64	30	43	30
Other	13,606	9,379	10,289	3,529	2,453	2,355
Total cheese	*57,195*	*76,036*	*56,096*	*15,262*	*17,933*	*13,872*
Other milk products—						
Preserved, condensed, concentrated, etc.—						
Sweetened	35,781	13,228	12,653	4,601	1,741	1,570
Unsweetened	14,543	11,638	10,512	1,656	1,350	1,189
Infants' and invalids' food (essentially of milk)(*d*)	10,698	26,783	29,079	3,244	8,827	9,171
Casein	42,470	37,020	58,217	9,545	8,227	10,809
Dried or powdered—						
Full cream	28,282	24,865	30,006	7,515	6,958	7,435
Skim	118,279	87,025	88,259	15,095	9,493	6,127

(*a*) Excludes butter concentrate, ghee, and ships' stores. (*b*) Excludes ships' stores. (*c*) Includes pastes and spreads. (*d*) Includes malted milk. New series from 1967–68; not comparable with figures for earlier years.

The pig industry

In line with the general trend of increased specialisation common to most of the rural industries, pig farming has developed into a separate industry being no longer mainly associated with the dairy industry.

At 31 March 1969 the number of pigs in Australia reached a record level of 2,253,000 which represented an increase of 197,000 (9.6 per cent) on the previous record at 31 March 1968 (2,056,000).

PIGS: NUMBERS IN STATES AND TERRITORIES, 1965 TO 1969

At 31 March	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.(a)*
1965	448,661	378,055	406,028	195,873	137,192	92,021	2,182	1,660,012
1967	513,575	350,591	467,572	222,334	160,983	85,654	2,791	1,746,551
1967	513,575	350,591	467,572	222,334	160,983	85,654	2,791	1,803,500
1968	645,196	376,990	520,141	242,319	182,507	86,517	1,999	2,055,669
1969	690,226	421,655	535,496	288,019	219,787	95,363	2,488	2,253,034

(*a*) Incomplete; excludes Australian Capital Territory.

A long-term comparison of pig numbers is given in the division Pastoral Production of this chapter (*see* page 802). A map showing the distribution of pigs in Australia at 31 March 1963 faces page 1083, Year Book No. 50 and a graph showing the number of pigs in Australia from 1870 onwards appears on plate 42 of this Year Book (*see* page 804).

PIGS SLAUGHTERED: STATES AND TERRITORIES, 1964-65 TO 1968-69
('000)

Year	*Slaughterings passed for human consumption*									*Total slaughterings (including boiled down)*
	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*	
1964–65	674	599	623	241	182	135	3	5	2,461	2,468
1965–66	774	703	640	298	195	146	2	9	2,769	2,777
1966–67	849	698	666	316	214	149	2	9	2,903	2,912
1967–68	908	700	735	310	242	143	3	9	3,049	3,058
1968–69	1,008	771	800	317	263	139	3	10	3,310	3,319

Production of pigmeat, bacon and ham

PRODUCTION OF PIGMEAT (CARCASS WEIGHT): STATES AND TERRITORIES 1964-65 TO 1968-69
(Tons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1964–65	31,509	28,048	31,259	12,656	9,861	6,585	90	218	120,226
1965–66	35,343	33,195	31,394	15,223	10,444	7,023	93	428	133,143
1966–67	38,283	33,094	33,255	15,947	11,584	7,164	87	386	139,800
1967–68	41,129	33,204	36,739	15,787	13,159	6,890	93	385	147,386
1968–69	46,313	36,582	39,168	15,939	14,006	7,024	107	460	159,599

PRODUCTION OF BACON AND HAM (CURED CARCASS WEIGHT): STATES 1964-65 TO 1968-69
(Tons)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
1964–65	13,923	9,366	11,086	3,822	3,998	1,171	43,366
1965–66	15,055	9,357	12,342	4,106	4,298	1,062	46,220
1966–67	15,366	9,995	14,670	4,403	4,624	1,242	50,300
1967–68	15,134	9,340	14,103	4,110	5,128	1,281	49,096
1968–69	14,748	9,872	15,189	3,998	5,417	1,394	50,618

Consumption of pigmeat, bacon and ham

The apparent consumption of pigmeat increased from 14.6 lb per head in 1967–68 to a record post-war figure of 16.2 lb in 1968–69.

PRODUCTION AND DISPOSAL OF PIGMEAT (CARCASS WEIGHT): AUSTRALIA 1964-65 TO 1968-69

					Apparent consumption (as pork or smallgoods) in Australia	
Year	*Change in stocks(a)*	*Production*	*Exports*	*Curing and canning*	*Total*	*Per head per year*
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
1964–65	−0.2	120.2	0.4	60.7	59.3	11.8
1965–66	. .	133.1	0.5	64.3	68.4	13.3
1966–67	−1.1	139.8	0.9	69.8	70.2	13.4
1967–68	+0.9	147.4	0.6	68.1	77.9	14.6
1968–69	+0.4	159.6	1.2	70.3	87.7	16.2

(*a*) Includes allowance for imports.

PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED CARCASS WEIGHT): AUSTRALIA, 1964-65 TO 1968-69

					Apparent consumption in Australia	
Year	*Change in stocks*	*Production*	*Exports*	*Canning*	*Total*	*Per head per year*
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb
1964–65 . .	. .	43.4	0.1	5.2	38.0	7.5
1965–66 . .	+0.2	46.2	0.2	7.0	38.8	7.6
1966–67 . .	−0.2	50.3	0.2	8.1	42.1	8.1
1967–68 . .	+0.1	49.1	0.2	7.7	41.1	7.7
1968–69 . .	. .	50.6	0.2	8.1	42.4	7.8

Exports of pigs and pig products

EXPORTS OF PIGS AND PIG PRODUCTS: AUSTRALIA, 1966-67 TO 1968-69

		Quantity			*Value ($'000 f.o.b.)*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Bacon and ham (including canned) . . .	'000 lb	564	574	498	406	448	377
Lard	'000 lb	98	72	42	16	14	8
Frozen pork . . .	'000 lb	2,060	1,239	2,658	826	540	935
Pigs, live . . .	number	680	806	1,600	47	47	93

The poultry industry

Once part of the mixed farming sector the poultry industry is now a highly specialised and distinct industry. The bulk of the commercial production is obtained from this source, though many farm households and some private homes in suburban areas keep poultry to supply their domestic needs and some supplies from this source are also marketed. Because the data from this latter sector is incomplete, details of poultry numbers throughout Australia are not published. There is an increasing tendency for producers in the large scale commercial sector to specialise in either egg production or the production of poultry meats. These two sectors of the industry each have separate statistics and separate research schemes. Both sectors are good examples of the general movement towards specialised, large scale capital intensive production which is common to all rural industries.

Stabilisation scheme for the egg industry

A Commonwealth industry stabilisation scheme for the egg industry has been in operation since 1 July 1965. The principal features of the scheme are embodied in three Commonwealth Acts—*Poultry Industry Levy Act* 1965–1966, *Poultry Industry Levy Collection Act* 1965–1966, and *Poultry Industry Assistance Act* 1965–1966.

The scheme provides for the imposition of a levy on hens over six months of age kept for commercial purposes. The money obtained from the levy is used to meet trading losses on surplus eggs. Previously, returns to producers were equalised by State Egg Boards, who imposed an equalisation deduction to cover deficits which resulted from sales to overseas markets.

In determining the rate of the hen levy, the Minister for Primary Industry is required to take into consideration any recommendations by the Council of Egg Marketing Authorities of Australia (which consists of all members of the State Egg Marketing Boards) and is precluded from prescribing a rate in excess of such recommendations. The maximum rate of levy permitted under the legislation is $1 per hen per annum. The levy is payable fortnightly by the owner of the hen. The levy operated at its maximum in 1967–68 and 1968–69. It was apportioned at a rate of 4 cents per hen per fortnight for the first 24 fortnights and 2 cents per hen per fortnight for the remaining two fortnights, in accordance with the recommendations of the Council of Egg Marketing Authorities of Australia.

Exemptions from payment are granted on the first twenty hens in each flock and also on a substantial proportion of broiler breeder hens. The eggs produced by broiler breeder hens which are not used for hatching determine the proportion of those hens on which the levy becomes payable in accordance with a formula incorporated in the legislation.

By arrangement between the Commonwealth and State Governments, the State Egg Boards collect the levy due in each State from individual producers and remit the total amount to the Commonwealth (the Department of Primary Industry collects the levy in the Australian Capital Territory). The Commonwealth Government pays into the Poultry Industry Trust Fund amounts equal to the receipts obtained from the hen levy. These amounts totalled $10,786,000 in 1968–69 ($10,949,000 in 1967–68). Payments from the Fund are made to the State Governments for financial assistance to the poultry industry, and are authorised by the Minister for Primary Industry, after consideration has been given to the recommendations by the Council of Egg Marketing Authorities of Australia. Payments from the Trust Fund totalled $10,920,228 in 1968–69 ($10,420,000 in 1967–68).

Research

The *Poultry Industry Assistance Act* 1965–1966 permits expenditure from the Poultry Industry Trust Fund to be made for research. The Commonwealth Government has agreed to match expenditure from this Fund on a $1 for $1 basis with a limit to its contribution of $100,000 per annum. There is no restriction on the amount which may be expended from the Fund for research purposes.

Research projects are recommended by the Council of Egg Marketing Authorities of Australia for approval by the Minister for Primary Industry. Expenditure may be approved for scientific, technical or economic research, the publication of reports thereon, the training of persons for research, and the dissemination of information and advice on scientific, technical or economic matters.

Chicken Meat Research

In June 1969 a research scheme for the chicken meat industry was established along the lines of the schemes existing for the meat, wheat, dairy, tobacco, wine, wool and poultry industries. The legislation provides for a levy of 10 cents per 100 meat type chickens hatched to be paid into a trust fund. Research expenditure from this fund will be matched by an equal Commonwealth contribution. It is expected that some $160,000 will be available for research purposes in the initial years of the scheme.

Marketing of eggs

Details of the *Egg Export Control Act* 1947–1966 were given in earlier issues of the Year Book (*see* No. 47, page 997).

Chicken hatching and poultry slaughterings

Statistics shown in the following section have been compiled on a Commonwealth basis since 1965–66 from returns supplied by commercial chicken hatcheries (i.e. those making sales of day-old chicks) and by commercial poultry slaughtering establishments. Poultry farmers hatching chicks solely for replenishing their own flocks, and the many very small producers, including producers in the Australian Capital Territory and the Northern Territory are excluded from the collection. However, the statistics represent a high level of coverage in respect of commercial hatcheries and slaughtering establishments.

Poultry slaughtered for human consumption

No allowance has been made in the following figures for interstate movement of dressed poultry or changes in stocks held, and figures therefore do not necessarily represent the level of consumption in the States concerned.

Statistics for poultry slaughtered in Queensland are based on numbers slaughtered as collected by the Queensland Department of Primary Industries. From 1968–69, New South Wales slaughtering statistics include poultry slaughterings by producers in the Australian Capital Territory.

NUMBERS OF POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION 1965-66 TO 1968-69

('000)

Year	*Chickens(a)*	*Other fowls(b)*	*Ducks and drakes*	*Turkeys*
1968–69				
New South Wales	34,838	2,763	535	683
Victoria	13,832	1,327	272	114
Queensland	12,952	1,102	114	52
South Australia	4,415	282	35	21
Western Australia	8,137	419	(*c*)	(*c*)
Tasmania	1,001	131	(*c*)	(*c*)
Australia	**75,174**	**6,025**	**1,010**	**916**
1967–68	76,361	5,403	790	660
1966–67	67,085	4,760	775	694
1965–66	52,551	4,601	841	481

(*a*) Comprises broilers, fryers and roasters. (*b*) Comprises hens, roosters, etc. (*c*) Not available for publication.

DRESSED WEIGHT OF POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION(*a*) 1965-66 TO 1968-69

('000 lb)

Year	*Chickens(b)*	*Other fowls(c)*	*Ducks and drakes*	*Turkeys*	*Total*
1968–69—					
New South Wales	97,153	9,951	1,953	6,243	115,299
Victoria	39,445	4,667	1,005	1,048	46,166
Queensland(*d*)	35,578	4,317	513	411	40,818
South Australia	10,937	987	130	215	12,269
Western Australia	20,672	1,508	(*e*)	(*e*)	22,653
Tasmania	2,866	447	(*e*)	(*e*)	3,507
Australia	**206,651**	**21,877**	**3,849**	**8,335**	**240,711**
1967–68	197,350	19,671	3,099	6,363	226,482
1966–67	168,130	16,940	2,997	7,093	195,159
1965–66	127,551	15,910	3,419	5,122	152,002

(*a*) Dressed weight of all birds, including pieces and giblets, as reported in all States except Queensland. (*b*) Comprises dressed weight of broilers, fryers and roasters. (*c*) Comprises dressed weight of hens, roosters, etc. (*d*) Estimated. (*e*) Not available for publication.

Chicken hatchings in commercial hatcheries

Details contained in the following tables relate to all eggs set and to chicks hatched in commercial hatcheries whether for sale as day-old chicks or for replenishment of own flocks.

NUMBER OF EGGS SET(*a*) IN COMMERCIAL HATCHERIES: STATES, 1965-66 TO 1968-69
('000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
			MEAT STRAINS				
1965–66 . .	40,226	18,758	n.a.	5,089	(*b*)	953	(*c*)65,026
1966–67 . .	50,141	19,626	n.a.	6,215	(*b*)	1,227	(*c*)77,209
1967–68 . .	54,270	20,655	17,969	7,407	(*b*)	(*b*)	112,484
1968–69 . .	51,667	20,120	18,381	6,546	(*b*)	(*b*)	109,832
			EGG STRAINS				
1965–66 . .	19,096	10,956	n.a.	4,464	3,362	1,067	(*c*)38,945
1966–67 . .	19,847	12,206	n.a.	5,352	3,784	761	(*c*)41,950
1967–68 . .	19,510	12,578	8,823	5,060	3,256	1,024	50,251
1968–69 . .	19,971	13,104	8,909	5,049	3,660	904	51,597

(*a*) Includes eggs which failed to hatch. (*b*) Not available for publication. (*c*) Incomplete; *see* individual States.

CHICKENS HATCHED(*a*) IN COMMERCIAL HATCHERIES: STATES, 1965-66 TO 1968-69
('000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
			INTENDED FOR CHICKEN MEAT—MEAT STRAINS (Unsexed)				
1965–66 . .	26,136	13,705	n.a.	3,501	(*b*)	582	(*c*)43,924
1966–67 . .	34,163	14,486	n.a.	4,383	(*b*)	833	(*c*)53,865
1967–68 . .	37,629	15,806	13,456	5,218	(*b*)	(*b*)	80,874
1968–69 . .	35,563	15,546	13,765	5,053	(*b*)	(*b*)	79,538
			INTENDED FOR CHICKEN MEAT—EGG STRAINS (Crossbred and other cockerels)(*d*)				
1965–66 . .	3,109	2,135	n.a.	274	324	107	(*c*)5,949
1966–67 . .	1,743	1,509	n.a.	230	313	72	(*c*)3,867
1967–68 . .	1,545	1,567	759	134	105	43	4,153
1968–69 . .	1,191	880	457	180	66	19	2,794
			INTENDED FOR EGG PRODUCTION—EGG STRAINS (Pullets)(*d*)				
1965–66 . .	5,934	3,710	n.a.	1,525	1,077	372	(*c*)12,618
1966–67 . .	6,293	4,114	n.a.	1,925	1,253	273	(*c*)13,858
1967–68 . .	6,093	4,251	2,862	1,904	1,143	371	16,624
1968–69 . .	6,310	4,455	2,922	1,854	1,246	299	17,085

(*a*) Excludes chicks destroyed. (*b*) Not available for publication. (*c*) Incomplete; *see* individual States. (*d*) Includes (for States other than Queensland) a proportion of unsexed egg strain chicks.

Recorded production of eggs and egg products

Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Australian Egg Board and the Egg Marketing Board of New South Wales. Details of production as recorded by these authorities are shown in the following table.

SHELL EGGS: PRODUCTION(*a*) RECORDED BY EGG BOARDS STATES, 1964-65 TO 1968-69

('000 dozen)

State	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales(*b*)	62,918	65,240	68,043	74,682	76,062
Victoria	28,016	29,925	34,100	38,231	41,147
Queensland	14,182	17,062	20,474	21,393	20,854
South Australia	9,354	11,218	13,176	15,813	15,692
Western Australia	9,620	9,295	9,810	11,583	11,491
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total(*c*)	**124,089**	**132,740**	**145,603**	**161,702**	**165,247**

(*a*) Receipts from consignors and sales by producer agents. (*b*) Includes Australian Capital Territory. (*c*) Excludes Tasmania.

Particulars of the production of whole egg pulp as recorded by the Egg Marketing Board for the State of New South Wales and by the Australian Egg Board for the other States are shown in the following table.

LIQUID WHOLE EGG PULP: PRODUCTION RECORDED BY EGG BOARDS STATES, 1964-65 TO 1968-69

('000 lb)

State	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales	18,463	12,540	15,734	14,532	15,691
Victoria	5,512	3,286	6,029	8,841	10,093
Queensland	5,731	5,450	6,809	7,877	5,288
South Australia	2,639	4,148	4,953	7,024	5,370
Western Australia	1,450	977	1,143	1,802	1,510
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total(*a*)	**33,795**	**26,401**	**34,667**	**40,076**	**37,952**

(*a*) Excludes Tasmania.

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1968-69 amounted to 7,112,000 lb and 4,928,000 lb respectively, compared with 5,968,000 lb and 4,541,000 lb respectively, in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

Consumption of eggs and egg products

Because of the operation of producers outside the control of the Egg Boards and the extent of 'back-yard' poultry-keeping, for which no statistics are collected, figures relating to total egg production must be accepted with some reserve. The production shown in the following table, together with details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control, plus estimates of production from uncontrolled areas and from 'back-yard' poultry-keepers.

ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL AUSTRALIA, 1964-65 TO 1968-69

Year	*Change in stocks*	*Estimated total production*	*Exports(a)*	*For drying and pulping(b)*	*Apparent consumption in Australia*	
					Total	*Per head per year*
	mil. doz	mil. doz	mil. doz	mil. doz	mil. doz	doz
1964–65	−0.2	225.5	4.2	31.9	189.6	16.8
1965–66	−0.3	228.1	4.7	27.2	196.5	17.1
1966–67	+0.2	237.8	5.3	31.3	201.0	17.2
1967–68	−0.3	253.3	6.5	42.3	204.7	17.2
1968–69	+0.3	257.0	6.7	41.0	208.9	17.2

(*a*) Includes ships' stores. (*b*) Includes wastage.

Details of the annual consumption of shell eggs, liquid whole egg and total shell egg equivalent per head of population are shown in the following table.

SUPPLIES OF EGGS AND EGG PRODUCTS AVAILABLE FOR CONSUMPTION: AUSTRALIA, 1964-65 TO 1968-69

(Per head per year)

Year	*Eggs in shell*	*Liquid whole egg and egg powder(a)*	*Total*	
			Number	*Weight(b)*
	number	number		lb
1964–65 . . .	202	15	217	27.1
1965–66 . . .	205	15	220	27.5
1966–67 . . .	206	13	220	27.5
1967–68 . . .	206	17	223	27.9
1968–69 . . .	206	18	224	28.0

(*a*) In terms of number of eggs in shell. (*b*) The average weight of an egg in Australia is taken as 2 oz.

Overseas trade in poultry products

Australian exports of shell eggs in 1968–69 amounted to 6,043,000 dozen compared with 5,813,000 dozen in 1967–68. The main outlets for Australian eggs in 1968–69 were the United Kingdom (1,964,000 dozen), Trucial States (874,000 dozen), Hong Kong (765,000 dozen), and Bahrain (462,000 dozen).

EXPORTS OF POULTRY PRODUCTS: AUSTRALIA 1966-67 TO 1968-69

		Quantity			*Value ($'000 f.o.b.)*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Eggs in shell . . .	'000 doz	4,451	5,813	6,043	1,161	1,417	1,356
Eggs not in shell—							
In liquid form . .	'000 lb	18,226	25,707	28,505	3,224	4,115	4,214
Dry	'000 lb	100	144	99	77	81	31
Frozen poultry . .	'000 lb	1,410	2,102	2,699	503	694	858
Poultry, live(*a*) . .	number	276,259	167,060	86,574	69	42	24

(*a*) Includes day-old chicks.

Imports of canned poultry in 1968–69 amounted to 210,000 lb, valued at $70,000, compared with 247,000 lb, valued at $81,000, in 1967–68.

The bee-farming industry

Production of honey and bees-wax

Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. A feature of the industry is that it consists mainly of itinerant apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from flora suitable for their bees. Production of honey in 1968–69 amounted to 29,081,000 lb (96.6 lb per productive hive) compared with 43,958,000 lb (122.0 lb per productive hive) in 1967–68. Bees-wax produced in 1968–69 was 425,000 lb compared with 609,000 lb in the previous year.

In the following tables, statistics for 1968–69 for each State are confined to apiarists with five or more hives, except in New South Wales where, since 1966–67, details relate to beekeepers with six or more hives. Prior to 1966–67, statistics for States other than Queensland related to beekeepers with five or more hives. In Queensland, details were confined to beekeepers on rural holdings with five or more hives and to beekeepers not on rural holdings with ten or more hives.

BEEHIVES, HONEY AND BEES-WAX: STATES AND A.C.T., 1968-69

State or Territory	*Beehives(a)*			*Honey produced*		*Bees-wax produced*	
	Productive	*Unproductive*	*Total*	*Quantity*	*Gross value*	*Quantity*	*Gross value*
	'000	'000	'000	'000 lb	$'000	'000 lb	$'000
New South Wales	113	60	173	10,654	932	145	90
Victoria	57	43	100	3,638	520	50	37
Queensland	32	27	58	1,718	173	32	20
South Australia	55	15	70	5,770	539	92	55
Western Australia	35	10	46	6,553	491	94	51
Tasmania	7	2	9	671	97	11	5
Australian Capital Territory	1	1	2	78	8	1	1
Australia	**301**	**157**	**458**	**29,081**	**2,760**	**425**	**259**

(*a*) At 30 June 1969.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora, particularly the eucalypts, which varies greatly from year to year.

HONEY AND BEES-WAX PRODUCTION: STATES AND A.C.T., 1964-65 TO 1968-69
('000 lb)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
HONEY								
1964–65	13,701	9,180	3,794	6,527	8,066	715	97	42,080
1965–66	7,343	9,608	1,472	9,929	10,923	630	80	39,985
1966–67	10,580	7,160	3,461	6,588	6,882	385	100	35,158
1967–68	21,014	7,580	4,116	6,844	3,410	841	153	43,958
1968–69	10,654	3,638	1,718	5,770	6,553	671	78	29,081
BEES-WAX								
1964–65	185	105	52	90	106	10	1	549
1965–66	95	115	25	136	138	8	1	519
1966–67	137	88	52	93	99	7	1	477
1967–68	281	92	66	105	49	13	2	609
1968–69	145	50	32	92	94	11	1	425

Honey levy

A levy is imposed on domestic sales of honey for the purpose of financing the operations of the Australian Honey Board. The current rate of levy, which became effective on 14 February 1966, is four-tenths of a cent per lb, but under the provisions of the *Honey Levy Act* 1962–65, it can be increased by regulation to a maximum of one cent per lb. The proceeds of this levy may be expended on the regulation of Australian exports of honey and on associated promotional and research activities. In 1966–67, 1967–68 and 1968–69 collections amounted to $92,000, $96,000 and $106,000 respectively.

Overseas trade in bee products

The principal importer of Australian honey in 1968–69 was the United Kingdom, accounting for 50.4 per cent, by value, of total exports.

Bees-wax was exported mainly to the United Kingdom and the Federal Republic of Germany in 1968–69.

EXPORTS OF HONEY AND BEES-WAX: AUSTRALIA, 1966-67 TO 1968-69

	Quantity ('000 lb)			*Value ($'000 f.o.b.)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Honey	13,050	n.a.	12,246	1,518	1,197	1,480
Bees-wax	598	471	301	299	321	200

Value of dairy, poultry and bee production

Value of dairy, poultry and bee production

Values of dairy, poultry and bee-farming production for 1968–69 and earlier years are shown in the following tables. Further information on values, including definitions of the terms used, is given in the chapter Miscellaneous.

GROSS VALUE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA
1964-65 TO 1968-69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
DAIRYING					
Whole milk used for—					
Butter(*a*)	157,989	154,862	165,635	134,089	148,148
Cheese(*a*)	30,119	25,603	33,345	31,148	29,994
Processed milk products	23,806	24,197	25,355	23,084	23,245
Other purposes	145,310	149,589	148,955	154,280	154,547
Subsidy paid on whole milk for—					
Butter	24,500	24,500	24,500	24,100	23,313
Cheese	2,500	2,500	2,500	2,900	3,687
Total, whole milk (including subsidy)	*384,224*	*381,250*	*400,289*	*369,602*	*382,935*
Pigs slaughtered	75,408	77,284	83,961	89,598	86,842
Dairy cattle slaughtered	45,624	49,438	39,563	44,849	43,967
Total, dairying	**505,256**	**507,973**	**523,814**	**504,050**	**513,742**
POULTRY					
Total, poultry	**137,425**	**154,603**	**174,451**	**172,488**	**179,160**
BEE-FARMING					
Honey	4,866	4,103	3,765	4,259	2,760
Bees-wax	253	224	224	367	259
Total, bee-farming	**5,119**	**4,323**	**3,992**	**4,627**	**3,021**

(*a*) Excludes Commonwealth subsidy which is shown separately.

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION STATES AND TERRITORIES, 1968-69

($'000)

State or Territory	*Gross production valued at principal markets*	*Marketing costs*	*Local value of production*	*Value of materials used in process of production*	*Net value of production (a)*
New South Wales	154,840	13,316	141,524	(*b*)26,437	115,087
Victoria	202,245	8,097	194,148	28,030	166,117
Queensland	64,267	4,747	59,521	19,346	40,175
South Australia	39,016	828	38,188	14,935	23,253
Western Australia	25,101	1,340	23,762	10,853	12,909
Tasmania	27,713	1,393	26,321	7,450	18,871
Northern Territory	112	3	109	n.a.	109
Australian Capital Territory	448	23	425	103	322
Australia	**513,742**	**29,747**	**483,998**	**107,154**	**376,843**

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowance has been made for costs of power kerosene, petrol and other oils.

Indexes of quantum and price of dairy, poultry and bee production

For details of these indexes *see* the chapter Miscellaneous.

CHAPTER 24

WATER CONSERVATION AND IRRIGATION

RESOURCES, UTILISATION AND NATIONAL AND INTERSTATE ASPECTS

Official Year Book No. 51, pages 228–31, contains a description of recent developments in the measurement of Australia's water resources. For information concerning general, descriptive and historical matter *see also* Year Book No. 37, pages 1096–1141.

An article on droughts in Australia appeared in Year Book No. 54, pages 991–6.

For further details on geographical and climatic features determining the Australian water pattern, *see* the chapter Physical Geography and Climate; on water supply and sewerage in metropolitan areas, cities and towns, the chapter Local Government; and on the generation of hydro-electric power, the chapter Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259–65 of Year Book No. 46, and a map showing the extent of known artesian basins throughout Australia is shown on page 273 of Year Book No. 48.

Water resources and their utilisation

Surface supplies

An assessment of Australia's surface water resources has been made, based on measured and estimated stream flows within 197 river basins, as follows. The total average annual discharge of Australian rivers has been assessed at 280 million acre feet. This can be divided into 108 million acre feet measured discharge and 172 million acre feet estimated for areas where there are generally no gauging records. For the whole area of Australia (approximately 3 million square miles) only 1.9 million square miles are regarded as contributing to stream flow (i.e. there is practically no flow from Western Plateau drainage division and from arid parts of other divisions).

The flow of Australian rivers is small in comparison with the flow of rivers in other continents, some examples of which, expressed as mean annual discharges in millions of acre feet, are: Amazon, 2,950; Mississippi, 465; Mekong, 405; Niger, 308; Volga, 205; and the ten major rivers of the United States of America in the aggregate, 900.

Major dams and reservoirs

The table below lists existing major dams and reservoirs, together with those under construction and those projected, at June 1969. The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are many others of smaller capacity in Australia. As a general rule, the figures shown for the height of wall (feet) refer to the vertical distance measured from the lowest point of the general foundations to the 'crest' of the dam, i.e. the level of the roadway or walkway on the dam.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name	*Location*	*Capacity (acre feet)*	*Height of wall (feet)*	*Remarks*
EXISTING DAMS AND RESERVOIRS				
Eucumbene	Eucumbene River, New South Wales	3,890,000	381	Part of Snowy Mountains Hydro-electric Scheme
Eildon	Upper Goulburn River, Victoria	2,750,000	260	Storage for irrigation and for the generation of electricity
Hume	Murray River, near Albury, New South Wales	2,480,000	167	Part of Murray River Scheme—storage for domestic, stock and irrigation purposes. Hydro-electric power also developed
Miena	Great Lake, Tasmania	1,710,000	60	Storage for Poatina hydro-electric power station
Warragamba	Warragamba River, New South Wales	1,670,000	450	For Sydney water supply. Also provides for generation of hydro-electricity
Menindee Lakes Storage	Darling River, near Menindee, New South Wales	1,468,700	60	Part of Darling River Water Conservation Scheme

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	*Location*	*Capacity (acre feet)*	*Height of wall (feet)*	*Remarks*
EXISTING DAMS AND RESERVOIRS—*continued*				
Burrendong	Macquarie River, near Wellington, New South Wales	1,361,000	250	Storage for rural water supplies
Blowering	Tumut River, New South Wales	1,322,400	368	For regulation of discharges from stations of Snowy Mountains Hydro-electric Scheme, primarily for irrigation but also for hydro-electric power generation
Burrinjuck	Murrumbidgee River, New South Wales	837,000	264	Storage for irrigation and production of hydro-electric power
Somerset	Stanley River, Queensland	735,000	173	Brisbane–Ipswich water supply, flood mitigation and small hydro-electric power station
Jindabyne	Snowy River, New South Wales	558,000	235	Part of Snowy Mountains Hydro-electric Scheme
Lake Victoria	Murray River, near South Australian border, in New South Wales	551,700	. .	Natural off-river storage for irrigation in South Australia. Storage improved by construction of embankments and control regulators
Wyangala	Lachlan River, New South Wales	(*a*)543,800	(*b*)220	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power. (*See also* under Dams and Reservoirs under Construction)
Lake Echo	Lake Echo, Tasmania	442,000	60	Storage for Lake Echo, Tungatinah, Liapootah, Wayatinah and Catagunya hydro-electric power stations
Clark	Derwent River, Tasmania	434,000	220	Storage for Tarraleah, Liapootah, Wayatinah, and Catagunya hydro-electric power stations
Arthur Lakes	Source of Lake River, near Great Lake, Tasmania	410,000	50	Part of Great Lake hydro-electric power development
Keepit	Namoi River, near Gunnedah New South Wales	345,300	177	For rural water supplies and hydro-electricity generation
Waranga	Goulburn River, Victoria	333,400	45	For irrigation storage
Tinaroo Falls	Barron River, North Queensland	330,000	155	For irrigation purposes in the Mareeba-Dimbulah area
Glenbawn	Hunter River, near Scone, New South Wales	293,300	251	Part of Hunter Valley conservation work, for irrigation and flood mitigation
Rocklands	Glenelg River, Victoria	272,000	93	Part of Wimmera-Mallee domestic and stock water supply system
Eppalock	Campaspe River, near Heathcote, Victoria	252,860	150	To supplement supply to Bendigo and for irrigation
Tantangara	Murrumbidgee River, New South Wales	206,000	148	Part of Snowy Mountains Hydro-electric Scheme
Avon	Avon River, New South Wales	(*a*)163,390	232	Part of Sydney water supply
Upper Yarra	Yarra River, Victoria	162,000	293	For Melbourne water supply
Wuruma	Nogoa River, Central Queensland	157,000	151	For irrigation along Burnett River
Glenmaggie	Gippsland, Victoria	154,300	121	Storage for irrigation
Lake St Clair	Central Highlands, Tasmania	154,200	. .	Improved natural storage for Tarraleah hydro-electric power station
Wellington	Collie River, Western Australia	150,100	121	For supply of water to irrigation districts and to agricultural areas and country towns
Grahamstown	Grahamstown River, near Newcastle, New South Wales	147,000	35	To supplement supply to Newcastle and district
Koombooloomba	Tully River, North Queensland	146,000	170	For hydro-electric and irrigation purposes
Serpentine	Serpentine River, Western Australia	144,000	181	For Perth water supply
Lake Brewster	Lachlan River, near Hillston, New South Wales	123,900	. .	Storage of rural water supplies for the lower Lachlan
Cairn Curran	Loddon River, Victoria	120,600	144	For irrigation storage
Rowallan	Mersey River, North Tasmania	110,000	140	Storage for Mersey Forth power development
Eungella	Broken River, North Queensland	106,000	160	Provision of cooling water for Collinsville power station, supply to Collinsville town and for irrigation purposes
DAMS AND RESERVOIRS UNDER CONSTRUCTION				
Lake Gordon	Gordon River, South-west Tasmania	9,440,000	450	Storage for Gordon River power development
Ord River (main)	Near Wyndham, Western Australia	4,600,000	300	For irrigation, generation of hydro-electric power and flood mitigation (additional 6,000,000 acre feet flood control proposed)
Lake Pedder	Serpentine River, Huon River, Lake Edgar, South-west Tasmania	2,400,000	135 160 50	Storage for Gordon River power development

For footnotes *see* end of table.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	*Location*	*Capacity (acre feet)*	*Height of wall (feet)*	*Remarks*
DAMS AND RESERVOIRS UNDER CONSTRUCTION—*continued*				
Fairbairn Dam	Nogoa River, Central Queensland	(*c*)1,170,000	160	Storage for the Emerald Irrigation Area
Copeton	Gwydir River, New South Wales	1,105,000	370	For irrigation storage
Wyangala	Lachlan River, New South Wales	987,100	280	Strengthening and enlarging of existing dam for increased water supply and hydro-electric power generation. (*See also* under Existing Dams and Reservoirs)
Talbingo	Tumut River, New South Wales	747,000	530	Part of Snowy Mountains Hydro-electric Scheme
Mokoan	Winton Swamp, near Benalla, Victoria	300,000	35	For irrigation storage
Cardinia Creek	Near Emerald, Victoria	220,000	260	For off river storage for Melbourne water supply
DAMS AND RESERVOIRS PROJECTED				
Chowilla(*d*)	Murray River, in South Australia, near Victorian border	(*d*)5,000,000	86	Regulation of the lower Murray River
Dartmouth(*d*)	Mitta-Mitta River in North-Eastern Victoria	3,000,000	590	Additional regulation of Upper Murray flow to secure River Murray irrigation development
Buffalo (second stage)	Buffalo River, near Myrtleford, Victoria	800,000	260	For irrigation storage
Monduran	Kolan River, near Gin Gin, Queensland	475,000	171	For irrigation storage
Warkworth	Wollombi Brook, Hunter Valley, New South Wales	406,000	130	Flood mitigation and irrigation dam for Hunter Valley
Ross River	Near Townsville, Queensland	338,000	115	Flood mitigation and water supply to Townsville (First and Second Stages)
Pike Creek	Near Stanthorpe, Queensland	200,000	150	For irrigation, part of Dumaresq–Barwon Border Rivers Scheme
North Pine	North Pine River, near Petrie, Queensland	164,000	142	To supplement supply to northern Brisbane area
Tallowa	Shoalhaven River and Kangaroo River Junction, New South Wales	120,000	135	Water supply and pumped storage power development

(*a*) Present (temporary) storage capacity. (*b*) Maximum height of water at wall. (*c*) Subject to final survey. (*d*) *See* page 854.

Irrigation

For some brief remarks on the history of irrigation in Australia *see* issues of the Year Book prior to No. 39. Trends in irrigation practice were described in Year Book No. 37, page 1099

AREA OF LAND IRRIGATED, STATES AND TERRITORIES, 1964–65 TO 1968–69

(Acres)

Season and crop	*N.S.W.(a)*	*Vic.(b)*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1968–69—									
Cotton	45,122	..	10,075	..	8,327	..	..	..	63,524
Hops	..	(*c*)	..	..	(*d*)	1,550	..	..	(*e*)1,550
Orchards	34,137	46,382	(*f*)10,487	32,570	13,059	8,157	84	6	144,882
Rice	82,773	..	..	..	(*d*)	..	(*g*)	..	(*e*)82,773
Sugar-cane	(*c*)	..	152,832	..	..	..	..	..	(*e*)152,832
Tobacco	n.a.	n.a.	13,427	..	..	..	..	..	(*e*)13,427
Vegetables	20,449	27,362	45,844	14,414	9,740	17,013	243	109	135,174
Vineyards	17,885	47,691	(*h*)	31,108	749	..	..	..	(*e*)97,433
Other crops (including fodder and fallow land)	473,003	140,694	123,520	34,402	3,847	6,369	105	655	782,595
Total, crops	*673,369*	*262,129*	*356,185*	*112,494*	*35,722*	*33,089*	*432*	*770*	*1,474,190*
Pastures	605,987	1,097,858	45,264	61,417	35,856	23,167	1,072	378	1,870,999
Total, 1968-69	**1,279,356**	**1,359,987**	**401,448**	**173,911**	**71,578**	**56,256**	**1,504**	**1,148**	**3,345,188**
1967–68	1,352,493	1,301,305	352,459	173,178	73,480	66,243	913	1,117	3,321,188
1966–67	1,440,781	1,313,888	344.052	138.757	70.627	47.225	890	1,154	3,357,374
1965–66	1,308,439	1,262,661	332,534	128,835	67,407	45,196	771	1,125	3,146,968
1964–65	1,198,404	1,189,055	281,173	123,139	63,035	34,322	587	1,120	2,890,835

(*a*) *Source:* Water Conservation and Irrigation Commission. (*b*) *Source:* State Rivers and Water Supply Commission. (*c*) Not available separately; included in Other crops. (*d*) Not available for publication; included in Other crops. (*e*) Incomplete, *see* individual States. (*f*) Includes vineyards. (*g*) Not available for publication; excluded from totals. (*h*) Included with Orchards.

Irrigation research

Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following: high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilisation of irrigated pastures by stock; and growth problems affecting plants and trees.

Irrigation is studied by the Commonwealth Scientific and Industrial Research Organization at a number of its research stations and laboratories, the principal one being the Division of Irrigation Research at Griffith (New South Wales), where investigations are concerned with limiting the degradation of land by irrigation, improving the quality and range of irrigated crops, and assessing the amount of water required by irrigated crops and the most economical means of applying it. The crops being studied include citrus, cotton, rice, lucerne and vegetables. Special attention is also given to the manner in which plants utilise carbon dioxide from the air with water and nutrients from the soil. The Organization's Division of Plant Industry studies irrigated pastures at Deniliquin (New South Wales) and Canberra (Australian Capital Territory), and tobacco at Mareeba (Queensland). At Adelaide (South Australia) and Merbein (Victoria) the Division of Horticultural Research is working on problems of the dried-fruit industry and on wine grapes and pome-fruit. The Division of Land Research conducts research on rice at the Coastal Plains Research Station, Darwin (Northern Territory), and on a number of irrigated crops, including rice, safflower, linseed, and cotton, at the Kimberley Research Station (Western Australia). The Division has also carried out a number of hydrological investigations in connection with the utilisation of underground water for irrigation. The Division of Soils and the Division of Soil Mechanics are studying methods of reducing seepage from earthen dams, and take part in the examination of the physical properties of sediments beneath proposed dam sites. The Division of Soils is also looking at underground water movement and the water balance in the south-east of South Australia, and at the drainage and soil moisture regime of the irrigated swamps of the lower Murray River.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation areas and associated districts, and the Coleambally Irrigation Area. It is representative of the New South Wales Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales, the Water Conservation Service of New South Wales, the Rice Marketing Board of New South Wales, the Wine Grape Marketing Board of New South Wales, co-operative and secondary industries, and farmers' organisations. Finance is provided by these authorities on an agreed basis. The objectives are: to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organisation; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and to co-ordinate the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

Two other organisations with similar objectives are the Victorian Irrigation Research and Promotion Organisation which operates from Shepparton, and the Murray Research and Extension Committee centred at Deniliquin.

Preservation of catchments

Since water conservation commences on the catchments it is becoming increasingly recognised that anything which interfers with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimise the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reforestation and the preservation of catchments. In recent years efforts to counteract soil erosion have been intensified, and there is some evidence of a more unified approach to catchment, water, forestry, and land use, factors regarded as parts of a single problem.

Sub-surface supplies

Much of Australia's underground water is obtained from artesian and sub-artesian basins and is used for stock purposes and domestic use. These supplies are indispensable in the dry areas which comprise most of the inland and extensive coastal areas as well. The quality of water ranges from usable to very saline.

Considerable use is also made of sub-surface water, other than pressure water, from localised groundwater basins, particularly in the well-settled areas. The water is used mainly for domestic and stock purposes. Compared with other countries with similar rainfall and climate, underground water is not used extensively for town and individual industrial supplies and irrigation, but its use for these purposes is increasing.

Artesian and sub-artesian supplies. Pressure water (either artesian or sub-artesian), variable in quantity and quality, is obtainable in many parts of Australia, the various artesian basins extending over about half the continent. A map of Australia showing the extent of the known artesian basins appears on page 273 of Year Book No. 48.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 676,250 square miles, comprising about 421,000 in Queensland, 135,000 in South Australia, 81,250 in New South Wales and 39,000 in the Northern Territory. The table below shows the principal defined water-bearing basins in Australia.

More than 18,000 artesian bores have been drilled within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated as exceeding 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but most is unsuitable for plant life; in certain areas sub-artesian waters are suitable for all uses. Some of these areas are in the Canning, Murray, Georgina and Barkly, Perth, Ord-Victoria, Pirie-Torrens and Adelaide Basins. In the Eucla Basin and parts of the Murray and Pirie-Torrens Basins the water is of poor quality, being barely suitable for stock.

In common with other countries possessing artesian supplies, Australia has been faced with the problem of flow diminution. It was recognised early that flows were diminishing as more bores were drilled, but it is now considered that while many of these bores will ultimately cease to flow, others will assume a perpetually steady rate of flow, corresponding with the average recharge from rainfall absorbed by permeable outcrops, mainly sandstone and limestone. Diminution in flows from artesian bores has emphasised the need to eliminate wastage as much as possible. Licences now issued for the construction of new artesian bores prohibit the distribution of water through drains, channels, etc., and the supplies must be confined to the borehead or piped to appropriate watering points.

PRINCIPAL WATER-BEARING BASINS IN AUSTRALIA

Name	*State*	*Geological age of chief aquifers*	*Approximate area*	*Depth to pressure water*
			square miles	feet
Great Artesian	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic	676,250	Up to 7,000
Canning	Western Australia	Mesozoic-Palaeozoic	150,000	100 to 1,800
Murray	Victoria, New South Wales and South Australia	Miocene-Eocene	109,000	100 to 1,300
Georgina (including Barkly and Daly)	Northern Territory, Queensland	Cretaceous, Ordovician, Cambrian, and Upper Proterozoic	108,000	150 to 1,000
Eucla	Western Australia, South Australia	Pliocene-Miocene	74,000	300 to 2,000
Carnarvon	Western Australia	Cretaceous, Permian	45,000	200 to 4,000
Perth	Western Australia	Recent, Jurassic	21,000	200 to 2,500
Western District (Otway)	Victoria	Pleistocene-Upper Cretaceous	13,000	100 to 4,500
Basins of Ord-Victoria region	Northern Territory, Western Australia	Mainly Cambrian, and Permian	12,000	200 to 1,000
Pirie-Torrens	South Australia	Recent, Pleistocene	9,000	Up to 600
East Gippsland	Victoria	Pleistocene-Eocene	3,500	200 to 3,500
Adelaide	South Australia	Recent, Oligocene	1,100	200 to 600

Shallow groundwater. Shallow groundwater supplies are used in various parts of Australia for industry, irrigation, stock, and domestic purposes. Two examples of the use of these shallow supplies for industrial and domestic purposes occur in New South Wales. The Hunter District Water Board pumps up to 15 million gallons a day (average use over 30 years is 9.2 million gallons per day) for general use from the Tomago coastal sands near Newcastle, and at Botany, Sydney, private industry pumps 8–10 million gallons a day for its own use from similar sands. Exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day. Examples of the use of shallow groundwater supplies for irrigation include the Burdekin Delta and the Bundaberg area in Queensland. In the Burdekin Delta, which covers an area of some 200 square miles, the present extraction for irrigation from underground sources is in the region of 200,000 acre feet per annum (about 150 million gallons a day) and in the Bundaberg area it is approximately 50,000 acre feet per annum (about 37 million gallons a day).

Schemes for artificial recharge of underground supplies have been implemented on both sides of the Burdekin River delta. Diversions from unregulated river flows of 61,000 acre feet per annum to the north side and of 40,200 acre feet per annum (when available) to the south side have been authorised.

In recent years there has been a marked increase, particularly in Queensland, New South Wales and Victoria, in investigation into the groundwater resources of river and coastal alluvium for irrigation and town water supplies.

National and interstate aspects

In terms of the Commonwealth Constitution primary responsibility for control and conservation of water rests with the individual State Governments. The Commonwealth Government is responsible for matters relating to water in its Territories. However, because political boundaries sometimes intersect river valleys and underground water basins, co-operation between Governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following paragraphs.

Australian Water Resources Council

The Australian Water Resources Council was established by joint action of the Commonwealth and State Governments in 1962. The council comprises Commonwealth and State Ministers primarily responsible for water resources, with the Commonwealth Minister for National Development as Chairman, and is serviced by a Standing Committee consisting mainly of the heads of Departments responsible to these Ministers, and by a number of technical committees.

The primary objective of the Council is the provision of a comprehensive assessment on a continuing basis of Australia's water resources, and the extension of measurement and research to provide a sound basis for the planning of future development.

In terms of its main objective, the Council in 1964 recommended, and the Commonwealth and State Governments agreed, that there should be an accelerated programme of establishment of stream gauging stations and investigation of underground water. The Commonwealth Government agreed to contribute a total of up to $2,750,000 for the first three years of what was envisaged as a ten-year programme. The Commonwealth contribution for the current three-year period, which began in 1967-68, will be up to $4,500,000. In the first three years the States spent about $8,000,000 from their own financial resources, and expenditure in excess of this amount is expected in the current three years.

The Council has also given attention to the collation of available data on Australia's water resources, and in 1965 a *Review of Australia's Water Resources* (*Stream Flow and Underground Resources*) 1963 was published. This document was the first official assessment of surface and underground water resources. *A Review of Australia's Water Resources* (*Monthly Rainfall and Evaporation*) by the Bureau of Meteorology was issued in 1969. Four groundwater maps with an explanatory booklet are to be published in 1971. In 1967 a catalogue *Stream Gauging Information, Australia, June* 1965 was published on behalf of the Council by the Department of National Development. The 1966, 1967 and 1968 annual supplements to this catalogue have been issued. Water authorities have also agreed to publish stream flow records at five-yearly intervals. The Council continues to support Australian participation in the programme of the International Hydrological Decade (1965–1974). An important contribution will follow from the decision of the Council to select one hundred representative basins throughout Australia for detailed hydrological studies.

Studies of the requirements and facilities for education in the water resources field have been undertaken by the Council. Research studies in progress on a number of topics are being published. A new Australian Water Resources Council Hydrological Series includes *A Survey of Water Desalination Methods and their Relevance to Australia*, *The Representative Basin Concept in Australia* and *Sediment Sampling in Australia*.

The Commonwealth Government is providing $400,000 in the three years ending 30 June 1971 for a new programme of water research which complements research already undertaken by Commonwealth agencies, universities and other organisations. The Water Resources Council has approved eighteen water research projects in this programme which covers topics of special concern to authorities involved in the investigation and development of water resources.

National Water Resources Development Programme

In developing water resources, the Commonwealth Government's role in the past, while important, had been confined to assisting special projects or areas, e.g. the Snowy Mountains Scheme, participation in the River Murray Commission, and financial support for individual State projects such as the Ord River project. However, the National Water Resources Development Programme, announced in November 1966, represents a very important move towards closer collaboration between State and Commonwealth Governments, and a more continuing and detailed involvement by the Commonwealth in the development of Australia's water resources.

Under the National Water Resources Development Programme the Commonwealth has undertaken to provide grants to the States amounting to a total of about $50,000,000 over five years for water conservation works aimed at reducing the hazards of droughts and expanding primary production. The grants under this programme apply to the Emerald dam and irrigation project in Central Queensland ($20,000,000); two Victorian schemes to reduce salinity levels in the Murray River ($3,600,000); Tailem Bend–Keith pipeline, South Australia ($6,000,000); Copeton dam on the Gwydir River, New South Wales ($20,000,000); King River dam, Victoria ($4,000,000); and the Cressy–Longford irrigation scheme, Tasmania ($750,000). In October 1969 the Commonwealth undertook to provide a further sum of $100,000,000 under this programme.

Proposals submitted by the States are examined by the Commonwealth to determine which are suitable, from a national point of view, for inclusion in the Programme, and accordingly grants are announced from time to time.

Murray River scheme

The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 408,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and approximately one-fourteenth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Darling (1,700 miles), the Murrumbidgee (980 miles), and the Goulburn (350 miles). The average annual flow of each of the chief contributory streams is as follows: Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,820,000 acre feet; Darling River, 2,820,000 acre feet; Goulburn River (including Broken River), 2,580,000 acre feet; Murrumbidgee River, 2,050,000 acre feet; and Ovens River, 1,266,000 acre feet. Irrigated production in the Murray River Basin is mainly grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, and fat lambs.

River Murray Waters Agreement. For a brief summary of historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia *see* issues of the Year Book prior to No. 39. Under the Agreement construction works are carried out by the States (which are also responsible for maintenance) subject to the approval and direction of the River Murray Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949 *see* Year Book No. 40, page 1065, and earlier issues.

At a conference of Ministers held in 1949 to consider the diversion of the Snowy River it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440,000 acre feet per annum would be added to the Murray River (*see* Snowy Mountains Hydro-electric Scheme, page 855) and that increased storage should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for enlargement of the Hume Reservoir by 500,000 acre feet to approximately 2,500,000 acre feet. A conference of Ministers in 1954 agreed to the enlargement, and it was also agreed that the Commission should be given power to construct regulators and to carry out such other work on the Murray

River between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7 April 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the Murray River, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following ministerial conferences, amendments were ratified by the four Parliaments concerned, and came into force on 6 November 1958.

Further amendment of the Agreement to provide for the construction of a storage of approximately 5,000,000 acre feet capacity at Chowilla in South Australia was ratified by legislation in the Commonwealth and State Parliaments and came into force on 30 April 1964. However, in view of the greatly increased cost by the time the project came to tender in 1967 and other significant factors (including water quality in the Lower Murray) which had arisen in the interim, the River Murray Commission resolved that, pending further investigations, construction of Chowilla Dam should be deferred. Further investigations than followed, including a re-assessment of the likely yield from both Chowilla and alternative storages on the Upper Murray and Mitta-Mitta Rivers.

Following careful consideration of this re-assessment, the River Murray Commission in February 1969 agreed that a 3,000,000 acre feet storage at Dartmouth on the Mitta-Mitta River provided the greatest overall benefits in terms of cost and yield and should be the next development of the resources of the River Murray. The question of sharing the benefits could not be resolved by the Commission and was therefore referred to the respective Governments. Subsequently, Ministers representing the four Governments concerned met in March 1969 and agreed on conditions for the construction of the Dartmouth Project and for the sharing of the increased system yield between Victoria, New South Wales and South Australia. Among other things, the meeting of Ministers agreed to continue the Menindee Lakes Agreement (due to expire on 31 December 1969) in perpetuity.

The Commonwealth Government has offered to assist the three States with financing the project by way of a loan to the extent of 50 per cent of each State's contribution. At the same time the Commonwealth itself will make its own quarter contribution of the cost of the project.

Before work can proceed with detailed design and construction, it is necessary that each of the four Parliaments ratify appropriate amendments to the River Murray Waters Agreement.

Above average inflows during the winter and spring months of 1968 enabled the Hume and Lake Victoria storages, which had been virtually empty at the end of the 1967–68 irrigation season, to completely recover. Restrictions to supply were therefore unnecessary during the 1968–69 irrigation season during which 4,094,000 acre feet was diverted by New South Wales from the Murray and its tributaries, 3,202,000 acre feet by Victoria, and 337,000 acre feet by South Australia.

River Murray Works. One of the major works of the Murray River scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, ten miles above Albury, forming a lake of 50,000 acres. Work on the enlargement of the reservoir to its approved capacity of 2,480,000 acre feet was completed in 1961.

The Yarrawonga Diversion Weir, which was completed in 1939, raised the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan junction and the other below the Lachlan junction.

The Mulwala Canal, supplied from the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, serving 1,800,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, serving 300,000 acres. Not all of this area is irrigated.

Adjoining the river in New South Wales, and 35 miles from the Murray-Darling junction, Lake Victoria storage, with a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. The inlet channel to Lake Victoria was enlarged in 1957 to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing materially to the large amount of irrigation development in the Murray Basin. The main storages are: New South Wales—Menindee Lakes Storage (Darling), Burrinjuck (Murrumbidgee), Keepit (Namoi), Burrendong (Macquarie) and Wyangala (Lachlan); Victoria—Eildon (Goulburn), Waranga (Goulburn), Eppalock (Campaspe) and Cairn Curran (Loddon). Details of these and other State works on Murray tributaries will be found in the sections dealing with State systems.

New South Wales-Queensland Border Rivers Agreement

The catchments for the border streams of New South Wales and Queensland (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland), and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that from April to October it is necessary to supplement rainfall by irrigation to stabilise and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

The New South Wales-Queensland Border Rivers Agreement came into effect on 1 July 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, MacIntyre, and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland for the furtherance of water conservation, water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Water Conservation and Irrigation Commission of New South Wales (the constructing authority) to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir on the MacIntyre River at Goondiwindi and the existing weir on the Barwon River at Mungindi (the Irrigation and Water Supply Commission of Queensland is the constructing authority for new weirs and regulators). The cost of these works and of administration are to be borne by the States in equal shares. The Agreement further provides that the water discharge from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

After unfavourable foundation conditions were disclosed at several dam sites on the Dumaresq River, investigations were extended to tributary streams, and superficially suitable sites located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates were prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Following exploratory drilling of the tributary sites, a report dealing with alternative storage proposals and possible amendments to the existing Agreement was submitted to the participating States. Consequent upon these investigations an Amending Agreement was executed between the States of New South Wales and Queensland which included, *inter alia* provision for the construction of storages on Pike Creek (Queensland) and the Mole River (New South Wales). The new agreement also provided for investigation and construction of works for the improvement of flow and of the distribution of flow in streams which intersect the New South Wales-Queensland border west of Mungindi.

Works completed under the original agreement include Bonshaw and Cunningham Weirs on the Dumaresq River, a weir and regulator on the Barwon River at the off-take of the Boomi River, and a low level weir to establish a pumping pool at Glenarbon on the Dumaresq River. The existing Goondiwindi and Mungindi Weirs are being maintained. operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed it is unlikely that any other weirs will be required.

Snowy Mountains Hydro-electric Scheme*

Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the Committee of reports in 1948 and 1949, the Commonwealth Parliament passed the *Snowy Mountains Hydro-electric Power Act* 1949 setting up an Authority to implement the proposals agreed upon.

The basis of the proposals was to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

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* *See also* the chapter Electric Power Generation and Distribution. For more detailed information *see* special article by the then Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX. Miscellaneous of Year Book No. 42.

The scheme involves two main diversions, that of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and that of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geehi Rivers for power generation also provide additional regulation of these streams, and this makes more water available for irrigation. Details of the two trans-mountain diversions and the associated power works together with details of progress and construction are given in Chapter 28, Electric Power Generation and Distribution.

When all works are completed, it is estimated that the total gain by diversion and regulation will amount to 1,120,000 acre feet per annum to the Murrumbidgee and 800,000 acre feet per annum to the Murray. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land, which is expected to result in a substantial increase in primary production.

International aspects

Australia maintains contact with international developments in water conservation and irrigation through its membership, since 1952, of the International Commission on Irrigation and Drainage. This Commission was set up in India in 1950 in order that the technical experience of all countries might be pooled for the benefit of all, and to promote the development and application of the science and technique of irrigation and drainage in the engineering, economic and social aspects. The Commission is constituted of National Committees of participating countries, and fifty-nine countries, including Australia, have so far been admitted to membership.

The Central Office of the International Commission on Irrigation and Drainage is situated in New Delhi, India. Congresses, which are held every three years, have taken place in India, Algeria, the United States of America, Spain, Japan, in that order and again in India in 1966. The seventh Congress was held in Mexico in April 1969.

An Australian National Committee was established following a meeting of representatives of Australian authorities held in Melbourne in 1953. At that meeting it was decided, *inter alia*, 'that a National Committee should be formed and that the National Committee would consist of representatives of Government Departments, Statutory Authorities, firms, and invididuals actively interested in irrigation and drainage'. The Committee meets annually.

STATES AND TERRITORIES

The foregoing text deals with water conservation and irrigation in Australia generally and with international, national and interstate aspects. The following survey covers the local pattern of water resources and the steps taken by the State Governments to bring about their development. In the various States water policies tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria almost every form of water scheme is in operation, in New South Wales major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilise sugar production. Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

New South Wales

On page 1110 of Year Book No. 37 information is given on the pattern of rainfall and the history of irrigation in New South Wales. (*See also* the chapter Physical Geography and Climate of this issue.)

Administration

The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, 1912–1955 the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage and prevention of inundation.

For particulars of the New South Wales–Queensland Border Rivers Agreement ratified by Acts of both States in 1947, *see* page 855 of this chapter.

Schemes summarised

The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, by Burrendong Dam on the Macquarie River, and by the Menindee Lakes Storage on the Darling River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc. in many places. A head storage on the Tumut River near Tumut is nearing completion and preliminary establishment work at Copeton Dam site on the Gwydir River commenced on 14 February 1968. In addition, substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Areas. The Areas are: The Murrumbidgee Irrigation Areas, consisting of 451,263 acres served with water through a channel system stemming from the river at Berembed Weir; the Coomealla Irrigation Area of 34,626 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,388 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,850 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres, supplied from the Edward River by diversion at Stevens Weir; the Buronga (8,739 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas, served by pumping from the Murray; and the Coleambally Irrigation Area (203,379 acres), served by diversion from the Murrumbidgee River. All these Areas are administered by the Commission, and details of the various schemes are given in the table on page 858.

The capacities of the main storages for irrigation in New South Wales (in acre feet) are:

Darling—Menindee Lakes Storages (1,468,700);

Murray—Half share of Hume Reservoir, weirs and locks to Wentworth (1,351,570); Stevens Weir, Edward River (7,165);

Macquarie—Burrendong Dam (964,200 irrigation storage; 396,800 flood mitigation storage);

Murrumbidgee—Burrinjuck Dam (837,000); Berembed Weir (10,000); Redbank Weir (7,360); Maude Weir (6,740);

Namoi—Keepit Dam (345,300);

Lachlan—Wyangala Dam (temporary capacity 543,800); Lake Brewster (123,900); Lake Cargelligo (29,430); Jemalong Weir (2,200);

Hunter—Glenbawn Dam (185,300 acre feet irrigation storage; 108,000 acre feet flood mitigation storage); and

Snowy Mountains Hydro-electric Scheme—Lake Eucumbene (3,890,000); Blowering Dam (1,322,400); Jindabyne Reservoir (558,000); Tantangara Dam (206,000).

The total length of supply channels, drains, escape channels and pipe lines constructed by the Water Conservation and Irrigation Commission in New South Wales is 5,169 miles. This comprises 3,503 miles of supply channels (including main canals), 1,597 miles of drains and escape channels, and 69 miles of pipe lines.

Extent of systems and nature of irrigated culture

The following table shows the areas of the various irrigation systems and the areas irrigated in 1968–69 and corresponding particulars for the State as a whole during the seasons 1964–65 to 1968–69.

AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES 1964–65 TO 1968–69

(*Source:* Water Conservation and Irrigation Commission)

(Acres)

		Area irrigated(a)									
				Fodder crops							
Season and system	*Total area*	*Rice*	*Other cereals grown for grain*	*Lucerne*	*Other*	*Pastures*	*Vineyards*	*Orchards (b)*	*Vegetables*	*Fallow land and miscellaneous*	*To*
1968–69—											
Irrigation Areas—											
Murrumbidgee (within the Areas)	451,263	35,394	54,742	6,603	2,221	77,850	7,464	18,389	2,569	9,836	215,
Lands adjacent supplied under agreement	n.a.	..	580	198	163	704	..	102	23	..	1,
Coleambally	203,379	15,724	22,379	970	549	32,937	58	72	415	1,815	74,
Hay	6,850	..	134	..	..	2,391	..	..	..	..	2,
Tullakool	18,006	1,188	620	215	145	4,710	..	..	..	350	7,
Coomealla	34,626	..	..	3	..	..	5,108	1,898	..	..	7,
Curlwaa	10,388	..	..	52	259	..	376	1,280	..	..	1,
Buronga	8,739	..	..	3	..	..	264	532	..	..	7
Mallee Cliffs	1,900	..	..	86	..	..	169	189	..	..	4
Total, Areas	*735,151*	*52,306*	*78,455*	*8,130*	*3,337*	*118,592*	*13,439*	*22,462*	*3,007*	*12,001*	*311,*
Irrigation Districts—											
Benerembah	112,818	6,886	17,220	982	817	24,733	..	..	338	1,822	52,
Wah Wah	589,975	..	9,564	1,967	440	9,760	..	..	70	2,600	24,
Tabbita	32,330	442	3,754	1,028	63	4,963	..	..	90	635	10,
Gumly	353	..	32	41	..	46	..	20	29	1	1
Berriquin	805,103	2,503	62,690	18,596	6,668	219,304	60	..	1,702	15,996	327,
Wakool	504,191	10,416	13,737	1,643	662	41,073	..	..	6	688	68,
Deniboota	338,033	6,397	9,519	1,515	516	22,866	..	..	..	1,033	41,
Denimein	147,012	3,823	5,653	829	320	9,938	..	..	16	..	20,
Jemalong—Wylde's Plains	224,556	..	9,938	9,503	656	6,585	..	..	..	..	26,
Total, Districts	*2,754,371*	*30,467*	*132,107*	*36,104*	*10,142*	*339,268*	*60*	*20*	*2,251*	*22,775*	*573,*
Flood Control Districts—											
Lowbidgee	399,707	..	..	..	..	..	..	..	..	..	n
Medgum	278,800	..	..	..	..	..	..	..	..	..	n
Total, Flood Districts	*678,507*	..	..	..	..	..	..	..	..	..	*n*
Irrigation Trusts—											
Pomona	1,580	..	..	..	..	..	760	130	..	..	8
Bringan	4,933	..	..	..	..	..	..	..	..	..	n
Bungunyah–Koraleigh	1,810	..	..	..	..	..	..	..	..	..	n
Glenview	661	..	..	..	..	..	..	..	..	..	n
Goodnight	1,104	..	..	..	..	..	..	..	..	..	n
Bama	3,446	..	..	..	..	..	..	..	..	..	n
West Cadell	5,827	..	..	..	..	..	..	..	..	..	n
Total, Trusts	*19,361*	..	..	..	..	..	*760*	*130*	..	..	*8*
Water Trusts—											
Domestic and stock supplies	2,829,674	..	..	..	..	..	..	..	..	..	
Licensed diversions	n.a.	..	76,321	66,510	25,083	148,127	3,626	11,525	15,191	47,160	393,
Total, 1968-69	**7,017,064**	**82,773**	**286,883**	**110,744**	**38,562**	**605,987**	**17,885**	**34,137**	**20,449**	**81,936**	**1,279,**
1967–68	6,987,412	76,082	247,490	118,601	54.778	715.224	15,658	35,313	18.497	70,850	1,352,
1966–67	6,943.118	73,639	192,212	106,877	48,820	818,916	17,935	35.562	16.639	130,181	1,440,
1965–66	6,928,808	64,341	164,059	101,901	50,417	742,249	16,361	36,065	16,593	116,453	1,308,
1964–65	6,912,735	61,617	132,624	42,901	9,491	552,888	14,305	27,605	4,375	81,494	(c)1,198,

(*a*) Excludes Flood Control Districts and some Irrigation Trusts, particulars for which are not available. (*b*) Citrus and deciduo in 1968–69 deciduous amounted to 12,333 acres, of which 9,612 acres were in the Murrumbidgee Irrigation Areas. (*c*) Includes to area irrigated by licensed diversions, but details for individual crops, etc., are not available.

Irrigation areas

Murrumbidgee. These areas, together with adjacent lands supplied under agreement, received 350,792 acre feet, slightly under a fifth of the total water (1,934,577 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam on the Murrumbidgee, forty miles north-west of Canberra. The catchment above the dam is about 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbita, Benerembah and Wah Wah, and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district, and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter, fed by melting snows and spring freshets, and is released during the September–May irrigation season. It passes along the river channel to Berembed Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 106 miles from the off-take. Reticulation channels aggregate approximately 900 miles and drainage channels 880 miles. In addition, approximately 440 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee Areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission.

The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas only, and has no jurisdiction over land transactions in the adjacent irrigation districts, although it is responsible for the operation and maintenance of the water supply in these areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission by purchase or under perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30 June 1969 was 409,112 acres, including 31,669 acres held for short lease grazing, agriculture, etc.

The land on which the Murrumbidgee Irrigation Areas and associated districts are situated originally comprised large sheep stations and was sparsely populated, but at 30 June 1969 its population was approximately 31,000, that of Leeton Shire being 11,350 and that of Wade Shire, 18,890. The principal products of the Murrumbidgee Irrigation Areas are wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans, and root vegetables. Rice growing was initiated on the Areas in 1924 and has since become the most important crop. In a normal season the water supplied for rice represents about half the total delivered to the Areas.

Other Irrigation Areas. The Coomealla, Tullakool, Buronga, Mallee Cliffs, Hay, Curlwaa, and Coleambally Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which is responsible also for the operation and maintenance of works to supply water.

Irrigation Districts

These districts are set up under the Water Act, 1912–1955 for (*a*) domestic and stock water supply and (*b*) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilise the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on 'extensive' irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. 'Water right' means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Deniboota and Denimein Districts is diverted through a main canal which is approximately 100 miles long. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. The total length of completed canals and channels in Berriquin District is 1,004 miles, comprising Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 792 miles, escape channels 105 miles, and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day. Wakool, with 427 miles of channels, contains 324 holdings, and the area developed by irrigation includes about one acre in six of the total area. Sheep raising and rice growing are the main industries. Considerable subdivision has occurred within the Berriquin District, and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Sheep (including fat lambs), dairying, wheat, and rice growing are the main industries.

Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts

The Water Act, 1912–1966 provides for the constitution of Trust Districts for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilise necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following are the water trusts, other than irrigation, as at present constituted (the area in acres of each district being shown in parenthesis): *Murray River*—Little Merran Creek (157,440), Bullatale Creek (68,320), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,007,780); *Lachlan River*—Marrowie Creek (292,640), Torriganny, Muggabah and Merrimajeel Creeks (170,240), Ulonga (64,960), Micabil Weir (11,500), Condobolin West Weir (4,480); *Miscellaneous*—Great Anabranch of Darling River (959,184), Nidgery Weir (46,880) and Algudgerie Creek (9,760)—making in all a total area of 2,829,674 acres. Twelve of these trusts have been formed for the provision of water for domestic and stock purposes and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. There are seven of these trusts.

The Lowbidgee Provisional Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district, Medgun, near Moree in the north-west, is also in operation.

River, lake and farm water supplies

During recent years the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigiation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognised as a means of stabilising production in dry months. There has also been a considerable increase along the Murrumbidgee, Lachlan, Namoi, and Macquarie Rivers.

Under the Farm Water Supplies Act, 1946, technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams, and flood and spray irrigation systems.

Underground water

For information on underground water resources in New South Wales *see* Year Book No. 55 and earlier issues.

Future programme

The programme of development in hand includes the provision of additional dams and storages, weirs, and flood mitigation and river protection works in various parts of the State. Work is continuing at Copeton Dam site on the Gwydir River. Legislation has been passed authorising the construction of Carcoar Dam (Belubula River), Lostock Dam (Paterson River), and Toonumbar Dam (Iron Pot Creek—a tributary of the Richmond River) as single purpose water conservation projects and existing legislation authorises the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. At Wyangala Dam, on the Lachlan River, the strengthening and enlargement of the original dam is nearing completion. Storage capacity will be increased to approximately 1,000,000 acre feet by 1971 following the installation of radial gates in the new spillway. Within the new Coleambally Irrigation Area further development of farms has been carried out and water is being supplied by the new diversion weir at Gogeldrie. At 30 June 1969, 233 large area farms and 22 horticultural farms had been allotted whilst another 31 mixed farms were in process of allocation.

Victoria

Particulars of the rainfall pattern of Victoria were given on page 1117 of Year Book No. 37. (*See also* the chapter Physical Geography and Climate of this issue.)

Administration

Victorian Governments have been active in the development of country water supplies since the 1860's when major works to supply the Bendigo goldfields were undertaken. Local trusts to construct and operate waterworks under Government supervision were provided for in the *Water Conservation Act* 1881. Development under the trust system was greatly stimulated by the *Irrigation Act* 1886, which provided for the construction of national headworks by the State, and vested in the Crown the right to the use and control of all surface waters. By 1900 there were 33 irrigation trusts and 18 other rural water supply trusts, but the system of local control was then breaking down under financial difficulties.

The *Water Act* 1905 established the State Rivers and Water Supply Commission to take over the Irrigation Trust districts (except the still-existing First Mildura Irrigation Trust) and to exercise the State's functions in the further control and development of surface waters outside the metropolis. The Commission now supervises all private diversions from streams and directly administers irrigation districts covering 2,263,544 acres, rural waterworks and urban districts covering 12,089,500 acres, flood protection districts covering 149,000 acres, and urban water supplies serving 235,380 people. It also supervises the activities of local urban water supply authorities supplying 671,130 people in 256 towns, as well as 97 local sewerage authorities and 29 river improvement and drainage authorities.

Works summarised

Since the State Rivers and Water Supply Commission began its operations in 1906 the capacity of storages under its control has been increased from 172,000 acre feet to 4,695,720 acre feet. In addition, Victoria has in effect a half share in River Murray Commission storages totalling 2,703,150 acre feet, bringing total capacity available to Victoria at 30 June 1969, to 6,047,290 acre feet. Most of the water used from these storages is for irrigation. The area irrigated in 1968–69 totalled 1,359,987 acres (compared with 105,000 acres in 1906). Irrigation deliveries in 1968–69 totalled 1,792,360 acre feet. The value of irrigation production in 1967–68 was estimated at $177,000,000. Of the total irrigation production about one-quarter was from lands irrigated by 'private diverters', i.e. irrigators who are authorised to take water from streams, lakes, etc., but who do not come within the boundaries of an irrigation district.

Storages

Capacities of principal storages (in acre feet) and system totals at 30 June 1969 were as follows:

Goulburn System—Eildon, 2,750,000; Waranga, 333,400; total, 3,130,650;

Murray System—half share of Murray storages, 1,351,570; total, 1,392,430;

Ovens System—Lake Buffalo, 19,500; total, 19,500;

Loddon System—Cairn Curran, 120,600; Tullaroop, 60,000; Kerang Lakes, 57,700; total, 276,250;

Campaspe–Coliban System—Eppalock, 252,860; Coliban storages, 64,930; total, 317,790;

Wimmera–Mallee Systems—Rocklands, 272,000; Toolondo, 86,000; Bellfield, 63,680; total, 627,890;

Maffra–Sale System—Glenmaggie, 154,300; total, 154,340;

Werribee–Bacchus Marsh—total, 49,900;

Mornington Peninsula—total, 38,340.

Nature of irrigated culture

The following table shows the areas irrigated in the various irrigation systems in 1968–69, and corresponding particulars for the State as a whole during the seasons 1964–65 to 1968–69.

AREA OF LAND IRRIGATED: VICTORIA, 1964–65 TO 1968–69

(*Source:* State Rivers and Water Supply Commission)

(Acres)

		Fodder crops		*Pastures*							
					Sown					*Fallow and*	
Season and system	*Cereals*	*Lucerne*	*Other*	*Native*	*Annual*	*Perennial*	*Vine-yards*	*Orchards*	*Market gardens*	*miscel-laneous*	*T*
1968–69—											
Goulburn-Campaspe-Loddon . .	10,884	25,241	11,683	21,103	271,947	216,400	328	24,624	4,554	22,364	609,
Murray—											
Torrumbarry .	7,665	6,113	6,913	23,097	143,650	89,388	4,272	1,751	815	7,248	290,
Murray Valley Irrigation Area .	386	7,048	2,436	87	62,490	44,203	260	6,634	575	156	124,
Pumping(*a*) . .	122	869	320	235	114	250	39,830	3 026	163	1,034	45,
Total, Murray .	*8,173*	*14,030*	*9,669*	*23,419*	*206,254*	*133,841*	*44,362*	*11,411*	*1,553*	*8,438*	*461,*
Other northern systems . . .	47	1,215	5	472	992	11,486	1	2,910	495	. .	17,
Southern systems .	90	1,161	418	2,202	450	66,796	. .	641	5,794	293	77,
Private diversions(*b*) .	1,644	10,366	9,726	3,212	10,634	128,650	3,000	6,796	14,966	5,247	194,
Total, 1968-69 .	**20,838**	**52,013**	**31,501**	**50,408**	**490,277**	**557.173**	**47,691**	**46.382**	**27,362**	**36,342**	**1,359,**
1967–68 . . .	37,264	56,652	16,061	49.676	473,422	513,145	47,534	46,616	34.169	26,766	1,301,
1966–67 . . .	24,605	49,868	18,474	54,713	480,454	529,549	47,418	46,594	26,617	35,596	1,313,
1965–66 . . .	29,347	48,016	19,123	54,967	472,426	494,040	45,697	44,851	27,653	26,541	1.262,
1964–65 . . .	8,048	42,320	14,116	51,210	443,227	484,634	47,778	44,743	26,884	26,095	1,189,

(*a*) Includes First Mildura Irrigation Trust. (*b*) Excludes private diverters in the Torrumbarry System, but includes all other priv diverters along the Murray River.

Irrigation systems

Goulburn–Campaspe–Loddon. The principal storage for Goulburn waters is Lake Eildon, which was completed in 1956, submerging the original 306,000 acre feet Eildon storage completed in 1927. For the distribution of additional supplies available from Eildon and from other new storages on the Loddon and Campaspe rivers it has been necessary to undertake major enlargements in the distribution system by a long-term programme of channel works which is still in progress. Deliveries during 1968–69 amounted to 731,152 acre feet, compared with 395,000 acre feet in 1954–55. Goulburn River water is diverted to the irrigation areas by gravitation from the pool formed by the Goulburn Weir, near Nagambie, completed in 1890 as a State work. The East Goulburn main channel of 1,000 cusecs capacity supplies the areas around Shepparton. Two 1,500 cusec channels to the west convey water to the off-river Waranga Reservoir and supply part of the Rodney area through off-takes on the way. From Waranga Reservoir there are two main outlets, one supplying the western part of the Rodney area and the other, of 1,200 cusecs capacity, supplying the Waranga Western Main Channel, which runs 230 channel miles west across the Campaspe and Loddon Valleys to beyond Birchip.

Flows in the Waranga Western Main Channel are augmented by the injection of Campaspe water through a pumping station of 200 cusecs capacity near Rochester. Supply to the Tragowel and Boort areas is augmented by gravitational diversion of Loddon water.

The gross area of holdings in the Goulburn–Campaspe–Loddon systems is 1,352,081 acres. The main products are dairy produce, fruit, wool, and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.

Murray River system. Water is diverted from the Murray by gravity at the Yarrawonga Weir for the Murray Valley Irrigation Area and at the Torrumbarry Weir for the Torrumbarry irrigation system which extends to Swan Hill. Holdings in the Murray Valley area total 301,888 acres, devoted mainly to dairying, fat lambs and canning fruit. Holdings in the Torrumbarry system total 382,162 acres, devoted mainly to dairying and the production of fat lambs, with a concentration of vineyards, orchards and market gardens around Swan Hill.

Downstream from Swan Hill there are 5 districts supplied by pumping: the district of the First Mildura Irrigation Trust and the 4 Commission districts of Nyah, Robinvale, Red Cliffs, and Merbein. These districts together serve 80,583 acres, producing mainly dried vine fruits, with some citrus fruits and table and wine grapes.

Southern systems. The Macalister district, covering 130,501 acres around Maffra and Sale, is supplied from the Macalister River, regulated by Lake Glenmaggie, and from the unregulated flow of the Thomson River. Dairy farming is the principal acitivty. The Bacchus Marsh and Werribee Districts, supplied from storages in the Werribee River only 20 miles west of Melbourne, cover 16,339 acres intensively developed for dairying and vegetables.

Wimmera-Mallee domestic and stock supply system

Storages in the Grampians in south-west Victoria ensure farm water supplies over an area of 11,000 square miles extending northward through riverless pastoral and cereal lands to the Murray. Farm dams throughout this region, which covers one-eighth of the total area of the State, are filled once each year, in the winter-spring season, through the medium of 6,600 miles of Commission channels and about 4,000 miles of private channels. Without this supply, occupation of the region would be extremely hazardous. Storage capacity has now been increased from 564,210 acre feet to 627,890 acre feet by construction of Lake Bellfield. Fifty towns, with a population of 46,000, receive their supply from the same system. Near Horsham and Murtoa, close to headworks in the south, a supply is maintained for the irrigation of an area of 7,500 acres, mainly for dairying.

Drainage, flood protection and river improvement

The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia flood protection district embracing 89,245 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth several million dollars each year.

By the *River Improvement Act* 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and since 1950, 29 such trusts have been formed (including the Dandenong Valley Authority). The importance of river improvement work is expected to continue to grow.

The Dandenong Valley Authority was created in 1963 by special legislation, with jurisdiction over the whole catchment of the Dandenong Creek (300 square miles) for purposes of arterial drainage, river improvement and flood protection. In June 1966 the Authority took over the Commission's Carrum Drainage District.

Finance

The net capital liability of the Commission at 30 June 1969 for works under its direct control was $304 million. Of this amount, $190 million was expended for irrigation and $29 million for rural, domestic and stock supplies, the cost of capital and interest repayments being borne almost entirely by the State. The total liability for urban supplies was $57 million, of which $30 million was borne by the districts concerned. The remaining $28 million was for expenditure on storages for private diversion and to supplement supplies to local authorities ($10 million), flood protection ($2 million), and items such as loan flotation expenses, miscellaneous surveys and investigations, and buildings, plant and stores.

Underground resources

For further information on underground water resources in Victoria *see* Year Book No. 55 and earlier issues.

Future programme

In July 1963 the Government announced plans for a long-term storage programme for irrigation purposes to cost a total of $75 million between 1963–64 and 1973–74. This included the projected Chowilla Reservoir referred to on page 854. Another of the storages is Lake Buffalo (second stage) which appears in the list of dams and reservoirs projected in the table on page 849.

Since the long-term storage programme came into operation, new storages have been completed for the Wimmera–Mallee System (Lake Bellfield, near Horsham); the Mornington Peninsula System (Devilbend Reservoir and Tarago Reservoir); the Goulburn–Murray System (Corop Lakes) and private diverters near Benalla (Lake Nillahcootie); and along the Buffalo River (Lake Buffalo, first stage).

At present work is proceeding on new storages to supplement supply to the Bacchus Marsh–Werribee System (Lake Merrimu) and the Goulburn–Murray System (Lake Mokoan, near Benalla).

During 1970 a start will be made on three new storages: Tandarra–Calavil Pondage north of Bendigo. Lake Howitt on the Mitchell River and Little Scotland Reservoir at Sunbury.

Lake William Hovell at present being constructed on the King River under a grant of $4 million from the Commonwealth Government will supplement supply to irrigators along the King Valley.

Works expenditure of about $4,000,000 per year is carried out from about twenty-six operating centres throughout the State. In addition, four major construction centres have been spending about $2,500,000 annually for many years on a programme of channel and drainage works in the Goulburn-Murray System, and the end of this programme is not yet in sight.

A major new development has been a grant of $3,600,000 from the Commonwealth Government to finance a scheme to reduce the flow of saline drainage water into the River Murray.

About 390 miles of pipelines will replace earthen channels in the new $2.5 million Millewa scheme situated west of Sunraysia.

Details of a projected storage on the Mitta-Mitta River at Dartmouth in North-Eastern Victoria appear on page 849.

Queensland

Particulars of the rainfall pattern of Queensland are given in Year Book No. 37, page 1122. (*See also* the chapter Physical Geography and Climate of this issue.)

Administration

In Queensland the right to the use and flow of non-tidal surface water contained in, or flowing through or past, the land of two or more occupiers, and all artesian and sub-artesian water vests in the Crown. Subject to certain reservations for local authority and other purposes, such water is controlled by a Commissioner of Irrigation and Water Supply. Private diversions from watercourses, artesian wells and, in certain declared areas, sub-artesian wells, are subject to licence by the Commissioner. Dams and weirs are constructed by the Commissioner to safeguard supplies in streams from which private pumping for irrigation takes place, and also to provide water for irrigation areas established by the Commissioner. For a description of the development of the present administration *see* Year Book No. 42 and earlier issues.

Irrigation—extent, systems and methods

Queensland sugar cane represents in value about 40 per cent of the agricultural production of the State. In 1968–69, 24 per cent of the sugar cane acreage was irrigated, representing 38 per cent of the total area irrigated in the State. Tobacco is another major crop, and the area irrigated during 1968–69 represented 97 per cent of the total plantings. Irrigation of grain crops has increased considerably in recent years and this trend is expected to continue.

Most irrigation in Queensland is undertaken by farmers operating under licence to obtain water by pumping from streams or from natural underground storages. Over half the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been developed extensively are the Burdekin Delta (Ayr-Home Hill area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg area), Lockyer Valley, Darling Downs, and Redland Bay.

Furrow irrigation is used for cotton, sugar cane, some tobacco, and miscellaneous row crops. Spray irrigation is used widely on fruit, vegetables, fodder crops, sugar cane, and the major part of the tobacco crop. Irrigation is required around-the-year for most of Queensland, as the timing and duration of the summer 'wet' season are too variable to enable a definite non-irrigation season to be fixed, as can be done in southern States.

AREA OF LAND IRRIGATED: QUEENSLAND, 1964–65 TO 1968–69

Season and division	*No. of irrigators*	*Area irrigated (acres)*							
		Vegetables	*Fruit and vineyards*	*Sugar cane*	*Tobacco*	*Cotton*	*Other crops*	*Pastures*	*Total*
1968–69—									
Southern Queensland	7,046	37,685	8,801	47,998	2,922	6,439	98,546	34,412	236,804
Central Queensland	734	1,165	668	287	82	3,432	18,714	3,929	28,278
Northern Queensland	2,418	6,993	1,018	104,547	10,422	204	6,260	6,923	136,366
Total, 1968–69	**10,198**	**45,844**	**10,487**	**152,832**	**13,427**	**10,075**	**123,520**	**45,264**	**401,448**
1967–68	9,600	40,576	9,537	141,087	11,833	8,502	99,771	41,154	352,459
1966–67	9,604	39,198	9,040	142,620	11,781	7,997	88,508	44,908	344,052
1965–66	9,897	38,726	9,049	140,994	12,116	6,333	90,070	35,246	332,534
1964–65	9,310	35,020	8,092	120,556	13,499	4,148	71,634	28,224	281,173

Areas under private irrigation

In six important areas irrigation has been developed by private pumping. In the Lockyer Valley, thirty miles west of Brisbane, more than a third of an estimated total irrigable area of 60,000 acres is under irrigation. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation, which is necessary for continuous agricultural production. A number of small weirs with a total storage of 1,340 acre feet have been constructed on Lockyer Creek by the Irrigation and Water Supply Commission; these also tend to augment and conserve underground supplies. Construction of an off-stream storage in the Atkinson's Lagoon area, which will be supplied by diversion from Buaraba Creek and several adjoining catchments, is nearing completion. The storage will provide a regulated supply of water in Buaraba Creek and along the lower end of Lockyer Creek. The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

The Darling Downs area west of Toowoomba is extensively irrigated from both surface and underground sources. Approximately 35,000 acres is under irrigation, of which 26,500 acres is supplied from underground sources. Much of the remainder derives its water from the Condamine River in a section which is supplemented by Leslie Dam (*see* page 866). Cereal, fodder, cotton and oil seed crops comprise a large proportion of the irrigated production in this region.

The Callide Valley in central Queensland is an important source of grain, dairy products, fodder, and cotton and is largely dependent on irrigation from underground water resources. Some 10,000 acres are now irrigated from underground supplies. The broad expanses of alluvium in the Pioneer Valley near Mackay have been extensively developed for cane production. The area under irrigation from groundwater and surface supplies is some 12,000 acres. The lands in the vicinity of Bundaberg are cultivated for sugar cane production and over 40,000 acres are irrigated from surface and underground supplies.

The other important area is the fertile delta region of the Burdekin River, where the irrigated area is over 67,000 acres. The delta has ground water supplies at shallow depth, and these have been tapped to obtain supplies in the dry periods of the year. Sugar is the main crop irrigated. A scheme to replenish the subterranean water supplies in the North Burdekin Delta by pumping from the Burdekin River is in operation under the control of the North Burdekin Water Board. There is a similar Board in operation in the South Burdekin Delta.

Government irrigation areas and projects

The Irrigation and Water Supply Commission has constructed and/or operates eight dams and forty-eight weirs with a storage capacity of 904,731 acre feet. Water from these storages supplies the following four irrigation areas operated by the Commission and supplements numerous streams from which pumping for private irrigation takes place.

Mareeba-Dimbulah Irrigation Area. In 1952 an irrigation undertaking was established to assist tobacco production in the valleys of the Walsh and Barron Rivers. Tinaroo Falls Dam on the Barron River (330,000 acre feet) was completed in 1958, and construction of irrigation works to serve 78,000 acres (comprising 910 tobacco farms and 180 mixed farms), of which 49,000 acres will be irrigated, is well advanced. Two hundred and ten miles of channels have been constructed, and irrigation water from the dam is being supplied to 554 farms. Tinaroo Falls Dam is also providing a regulated flow of water in Barron River at Kuranda for the generation of hydro-electric power at Barron Falls, and the necessity to maintain this supply has temporarily limited the number of farms receiving irrigation water.

Burdekin River Irrigation Area. The first stage of the Burdekin River Irrigation Area, comprising the Clare–Millaroo and Dalbeg sections, has been completed. Located from twenty-five to sixty-five miles from the mouth of the Burdekin, these areas comprise 18,862 acres and obtain water from central pumping stations drawing from the river. Two storages of 7,670 acre feet and 2,550 acre feet capacity have been constructed about seventy-nine miles and seventy-two miles respectively from the mouth of the river. Sugar cane production predominates in the area but rice production is increasing following recent highly successful trials. Additional water for the region is now available from the recently completed Eungella Dam on the Broken River.

Dawson Valley Irrigation Area. A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923, but work was discontinued after three weirs had been built in this area. Their total storage is 10,280 acre feet, and at present sixty-one farms (4,894 acres) are in production. Cotton and grain account for the major part of the production from irrigated areas. Following the severe drought conditions in 1968 when all storages were exhausted the construction of a further weir on the Dawson River, with a capacity of 16,000 acre feet, was approved.

St George Irrigation Area. This area comprises twenty farms, on which some 8,000 acres were irrigated during 1968–69 from a weir on the Balonne River (8,220 acre feet), and from a further two recently constructed weirs with a combined capacity of 7,350 acre feet. These two weirs also form part of the new major supply system. Cotton, grain, fodder, wool and fat lambs are the main products. Construction is in progress on a major storage and irrigation and other works to serve a further thirty-two farms. The major storage (E. J. Beardmore Dam), will have a capacity of 81,000 acre feet.

Emerald Irrigation Area. Formal approval for the establishment of the Emerald Irrigation Area was given on 28 March 1968, following agreement by the Commonwealth Government to make a non-reimbursable grant of up to $20,000,000 available for the construction of the dam. The project involves the construction of Fairbairn Dam on the Nogoa River with a capacity of 1,170,000 acre feet and the construction of irrigation, drainage, road and other works to serve some 130 irrigation farms on which up to 49,000 acres could be irrigated annually. Construction of Fairbairn Dam is in progress and is expected to be completed by 1972.

Miscellaneous Irrigation Projects. Additional projects which have been completed since 1961 or for which construction work has commenced include the following: Moogerah Dam (Warrill Valley Project) on Reynolds Creek (75,000 acre feet) is capable of irrigating some 7,000 acres of the Warrill Valley, and is providing water for the thermal power station at Swanbank, near Ipswich. Borumba Dam (Mary Valley Project) on Yabba Creek (34,500 acre feet) makes water available to maintain the town water supply for Gympie and will allow extension of the area irrigated from the Mary River to about 18,000 acres. Callide Dam (37,800 acre feet) on Callide Creek, nine miles upstream from Biloela, provides cooling water for the Calcap power station and compensation water for maintenance of underground supplies along Callide Creek. Leslie Dam (Upper Condamine Project), on Sandy Creek, has an initial capacity of 38,200 acre feet, with provision for later increase to 87,000 acre feet. Water from the dam is available for irrigation along the Condamine River as far as Cecil Plains and for a supply to the city of Warwick. Coolmunda Dam (Macintyre Brook Project) has a capacity of 61,000 acre feet, and provides irrigation water for up to 8,000 acres along Macintyre Brook. Wuruma Dam (Upper Burnett Project), on the Nogoa River, has a storage capacity of 157,000 acre feet for irrigation of 11,000 acres along 100 miles of the Burnett River. Eungella Dam (Bowen-Broken Project), on the Broken River, has a storage capacity of 106,000 acre feet and provides cooling water for the Collinsville power station, water for Collinsville town, 4,000 acre feet per annum for mining development at Goonyella on the Isaac River and irrigation water along the Bowen and Lower Burdekin rivers. Bedford Weir (storage capacity 5,200 acre feet), situated on the Mackenzie River some 15 miles north of Blackwater provides an assured supply of water for mineral development and urban requirement in the Blackwater area and some irrigation along the Mackenzie River. Work is nearing completion on the Atkinson's Lagoon Storage (capacity 25,400 acre feet), to provide irrigation water in the Lower Lockyer Valley. Construction has commenced on Maroon Dam (31,000 acre feet) on Burnett Creek, which will supply irrigation water along the Logan River. The development of rivers constituting portion of the Queensland-New South Wales border, under the authority of the Dumaresq-Barwon Border Rivers Commission, is described on page 855.

Rural Water Supply Areas

Although provisions existed in the Water Acts for many years for the constitution of rural water supply Areas and Boards, little advantage was taken of these powers until 1964 when an amendment of the Acts extended the purposes for which these Areas and Boards may be constituted and the methods of rating and financing of works, and provided for resumption or acquisition of lands by such Boards. This form of water supply is being sought increasingly by groups of landholders in various parts of Queensland to provide a reasonably economical measure of permanent supply for stockwatering, dairy and domestic purposes in areas prone to drought, and thus achieve a permanent form of drought relief. Usually the capital cost of works is met by a 50 per cent subsidy by the Government and the balance by a Board borrowing by Government guaranteed loan on the security of debentures.

At 30 June 1969 nine Rural Water Supply Areas, Grevillea, Back Creek, Brigooda, Tarampa, Coreen, Roadvale, Proston, Merlwood and Kooingal were operating, supplying 423 rural holdings covering 195,130 acres and reticulated by 277 miles of pipelines. Other schemes are nearing completion at Woodmillar, Glamorgan Vale, Benleith and Mulgildie; these will supply a further 124 rural holdings and serve 65,850 acres.

Water conservation, irrigation and drainage schemes may also be carried out under these Acts. One group irrigation scheme near Brookstead is now in operation and three group drainage schemes have been approved. Further group drainage schemes are currently under investigation.

Underground water

For information on underground water resources in Queensland *see* Year Book No. 55 and earlier issues.

Stock watering

A predominant interest in the field of water conservation has been the provision of stock and domestic water supplies in Queensland's great pastoral areas, which contain more than a third of the Commonwealth's cattle and about an eighth of the sheep. In addition to the stabilisation of water supplies in the pastoral areas, the provision of water along stock routes for travelling stock has received much attention in recent years.

At 30 June 1969, there were 866 facilities throughout the State and in addition, at that time, there were 13 facilities under construction and 15 under investigation.

Since 1935, the Queensland Irrigation and Water Supply Commission has acted as consultant and constructing authority to the Stock Routes Co-ordinating Board for watering facilities on stock routes. On completion, facilities are vested in local authorities for control and maintenance.

The two authorities mentioned above carry out a continuous investigation to ascertain general stock movements so that new facilities may be provided as required.

Technical and financial assistance to farmers

'*The Farm Water Supplies Assistance Acts*, 1958 *to* 1965' are designed to improve the standard of water supply installations on individual holdings, encourage greater development in individual irrigation schemes, provide greater stability of production, and avoid losses in time of drought as well as generally increase production. To achieve this purpose, the Acts authorise the provision of technical and financial assistance to landowners for the investigation, design and installation of approved works of farm water supply. All projects for which finance is provided under the Acts are carried out under Commission guidance, and for the payment of a small charge the Commission will advise on the construction of works designed by its staff, but for which the landowners do not require financial assistance under the acts.

During 1968–69, 887 requests (511 for technical assistance only and 376 for technical and financial assistance) were received in addition to 817 applications for advice on ground-water supplies. An amount of $1,086,661 was approved for advances and the amount actually advanced was $777,574.

South Australia

Brief particulars of the climatic conditions in South Australia are given on page 1129 of Year Book No. 37. (*See also* the chapter Physical Geography and Climate of this issue.)

Administration

Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act, 1932–1966 and Water Conservation Act, 1936, both of which empower the Minister of Works to impound or divert the water from any lake, watercourse or underground source for the purpose of establishing and maintaining public water supply schemes. The Waterworks Act, 1932–1966 governs the principal reticulated water supplies in proclaimed water districts throughout the State. A feature of these supplies is the extensive network of water mains supplying country townships and farmlands where local water resources are practically non-existent.

Under the Water Conservation Act, 1936, small dams, wells, bores, rainsheds, storages and, in some instances, minor reticulation works are provided in remote areas to assist local settlers in development and to supply travellers and travelling stock.

Irrigation

Australian irrigation originated in the upper Murray in South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for quantities held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped onto the land or gravitated from the river.

The two major authorities administering irrigation areas are the Department of Lands and the Renmark Irrigation Trust. The Trust is controlled by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold and is self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains eighty miles of reticulation channels.

The following table shows particulars of the areas of crops and pastures irrigated in the various areas during 1968–69 and in South Australia as a whole during the seasons 1964–65 to 1968–69.

AREA OF LAND IRRIGATED: SOUTH AUSTRALIA, 1964–65 TO 1968–69
(Acres)

Season and authority	*Vine fruits*	*Tree fruits*	*Citrus fruits*	*Other crops(a)*	*Pastures*	*Total*
1968–69—						
Department of Lands Irrigation Areas—						
Orchard land—						
Berri	4,812	1,389	1,500	. .	. .	7,701
Cadell	459	245	173	. .	. .	877
Waikerie	1,573	931	1,515	. .	. .	4,019
Cobdogla	4,633	242	319	. .	. .	5,194
Moorook	293	159	336	. .	. .	788
Kingston	120	75	280	. .	. .	475
Mypolonga	5	281	545	. .	. .	831
Chaffey-Ral Ral Division	790	289	14	. .	. .	1,093
War service land settlement—						
Chaffey-Cooltong Division	422	171	592	. .	. .	1,185
Loxton	3,374	650	2,137	. .	. .	6,161
Cobdogla-Loveday Division	228	34	49	. .	. .	311
Reclaimed swamp land—						
Monteith	. .	. .	. .	. .	985	985
Mypolonga	. .	. .	. .	. .	1,306	1,306
Wall	. .	. .	. .	. .	544	544
Murray Bridge-Burdett Division	. .	. .	. .	. .	109	109
Mobilong Division	. .	. .	. .	. .	432	432
Long Flat	. .	. .	. .	. .	340	340
Neeta	. .	. .	. .	. .	562	562
Pompoota	. .	. .	. .	. .	425	425
Cowirra	. .	. .	. .	. .	571	571
Jervois	. .	. .	. .	. .	3,687	3,687
Total, Irrigation Areas	*16,709*	*4,466*	*7,460*	. .	*8,961*	*37,596*
Renmark Irrigation Trust	5,682	1,844	1,762	. .	120	9,408
Private landowners	8,717	17,038		48,816	52,336	126,907
Total, 1968–69	**31,108**	**32,570**		**48,816**	**61,417**	**173,911**
1967–68	30,616	32,512		46,428	63,622	173,178
1966–67	28,268	32,122		36,061	42,306	138,757
1965–66	28,850	31,089		27,302	41,594	128,835
1964–65	28,286	30,094		28,795	35,964	123,136

(*a*) Includes fodder and fallow land.

Water supply schemes

Adelaide Metropolitan Water Supply. Adelaide and surrounding areas of development including Elizabeth derive their water from nine reservoirs in the nearby Mount Lofty Ranges and by means of pumping stations and a pipeline from the Murray River at Mannum. The reservoirs have a storage capacity of 155,000 acre feet and the pipeline has a nominal capacity of 95,500 acre feet a year. A second pipeline extending from Murray Bridge to convey River Murray water to the metropolitan supply system is under construction. This pipeline will initially have a capacity of 132,200 acre feet per year. The consumption for the whole area for the year 1968–69 was 95,000 acre feet, equivalent to a consumption of 89 imperial gallons per head per day. The capital cost to 30 June 1969 was $120,977,000.

Country reticulated supplies. Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa and South Para Reservoirs (50,350 acre feet) in the Barossa Ranges. Supplies to these areas are supplemented by River Murray water delivered into the Warren trunk main by a pipeline extending from Swan Reach to a point near Stockwell. This pipeline has a nominal capacity of 20,200 acre feet per year. Agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, and the Morgan–Whyalla Pipeline. The original 223-mile pipeline from Morgan to Whyalla and a second and larger pipeline completed in 1966 are at present able to carry 53,300 acre feet of water a year from the River Murray. A large part of Eyre Peninsula is supplied, through the 240-mile Tod River Main and the 104-mile East Coast Main, with water from the Tod River Reservoir (9,160 acre feet), the sand beds of the Uley-Wanilla Basin, the Lincoln Basin, and Polda Basin. Along the Murray River all towns are supplied from the river. Water from the river is also reticulated through adjacent farmlands for up to 30 miles, and a pipeline being extended from Tailem Bend to Keith provides the means of reticulating Murray water to numerous towns and a large area of farmlands in the upper south-east. Surface and underground resources have been developed to supply most rural centres not covered by the larger schemes. Water conservation and distribution works in country districts to 30 June 1969 have cost $140,506,000 (exclusive of river control and irrigation works on the Murray River) and contain 8,028 miles of water mains.

Underground water

For information on underground water resources in South Australia *see* Year Book No. 55 and earlier issues.

Farm water schemes

The Department of Mines gives assistance to individual farmers in the provision of supplies from underground sources, and the Department of Agriculture provides an advisory service on water conservation and irrigation designs on farms, and on the suitability of underground water for irrigation and stock purposes. In addition, a great part of the farming areas is supplied by the Engineering and Water Supply Department with water under pressure from the extensive distributions systems connected to various reservoirs and the Murray River.

South-eastern drainage

In the south-east of South Australia it has been necessary to construct drainage schemes to dispose of surplus water from areas where a series of valleys or flats is separated by low ranges, parallel to the coastline, which prevent natural drainage. The Millicent Drainage System, completed in 1885, reclaimed 100,000 acres. The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the State Government at public expense, plus those undertaken by the Government in co-operation with the landholders. The area is bounded on the east by the State boundary, and on the west by the sea coast. It extends from about 55 miles north of Kingston, southerly to near Millicent and Kalangadoo. Up to 1948 about 430 miles of drains had been provided at a cost of $1,441,752. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948 the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, which involved the excavation of 8,100,000 cubic yards and the provision of 343 miles of new or enlarged drains, has been completed. Work on the northern section of 140,000 acres is virtually complete with the construction of 85 miles of drains which involved the excavation of 2,989,880 cubic yards of material. In addition, work is in hand for the drainage of 727,000 acres of land in the Eastern Division of the south-east, situated east of Bakers Range, and extending from near Kalangadoo to north of Naracoorte. Part of the first stage of this work provided for the construction of a main diversion drain (consisting of the enlargement of an existing drain for a distance of 24 miles and the excavation of 22 miles of new drain) from Beachport to Struan. The work to date has required the excavation of 6,503,300 cubic yards of material; the total length of the diversion drain and associated relief drains is 51½ miles. Work is proceeding on the internal drainage of the area, and 795,380 cubic yards of excavation have been carried out in constructing 24¾ miles of new drains and enlarging existing drains. The capital cost of drainage in the South-Eastern Drainage Area System to 30 June 1969 was $18,089,000, and the length of drains constructed was 856½ miles. An extensive system of private drains (many of which are connected to the drains constructed under Government authority) also exists in the south-east of the State.

Murray River Irrigation Areas

Where irrigation water in excess of plant requirements has been applied, perched water tables develop. Rising to the level of tree roots, these cause death of orchards from salination and waterlogging. Most orchards and vineyards are now drained by plastic and tile drainage systems, thus restoring their health and productivity. Disposal of the drainage water is by pumping to basins on River flats where it evaporates, or by discharge into underlying sand and limestone aquifers. The usefulness of the latter strata is declining as they are becoming fully charged with water.

Western Australia

Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Year Book No. 37. (*See also* the chapter Physical Geography and Climate of this issue.)

Administration

The Minister for Water Supply, Sewerage and Drainage administers the departmental irrigation schemes under the *Rights in Water and Irrigation Act, 1914–1964.* He is advised by an Irrigation Commission representing the local irrigationists and governmental, technical and financial branches. He also administers, under the *Country Areas Water Supply Act, 1947–1964,* the water supplies to certain country towns and reticulated farmland. As Minister for Works he controls minor non-revenue producing supplies to stock routes and a few mines and agricultural areas with their associated communities. A small number of town supplies are administered by local boards under the *Water Boards Act, 1904–1964,* which provides a large degree of autonomy with ultimate Ministerial control.

Irrigation

Irrigation schemes have been established by the Government on the coastal plain south of Perth in the Waroona, Harvey and Collie River Irrigation Districts between Waroona and Dardanup, the water being channelled from dams in the adjacent Darling Range.

Logue Brook Dam with a capacity of 19,717 acre feet, Harvey Weir (6,495 acre feet) and Stirling Dam (46,191 acre feet) supply the Harvey Irrigation District, the rated area of which is 13,610 acres. The Harvey District links up with the Waroona Irrigation District, which is served by Waroona Dam (12,105 acre feet), Drakes Brook Dam (1,855 acre feet) and Samson Brook Dam (7,437 acre feet) and comprises a rated area of 3,060 acres. Wellington Dam on the Collie River with a capacity of 150,107 acre feet serves an area of 10,870 rated acres in the Collie River Irrigation District. Pastures for cattle comprise 89 per cent of water usage in these districts.

The recently completed Glen Mervyn Dam (1,209 acre feet) stores water for regulated release down the Preston River for irrigation of orchards and crops when the natural summer stream flow is insufficient to meet the demand.

During the past thirty years a centre of tropical agriculture has been developed at Carnarvon, near the mouth of the Gascoyne River. Private pumping from sands of the Gascoyne River is the principal source of irrigation water for the 158 plantations. Because of the high risk of drawing in surrounding saline ground waters by over-pumping, the usage of water by the planters is controlled strictly by the Government. The Government is developing up-river sources and delivers water by pipeline to 36 plantations in the district. Bananas for the Perth market and fruit and vegetables for the Perth and Adelaide markets are the principal crops. A tropical research station is maintained at Carnarvon by the Department of Agriculture.

A project has been embarked upon to provide water supplies for irrigation in the area traversed by the Ord River in the Kimberley Division. The project provides for the eventual development of an area of 178,000 acres of land agriculturally and topographically suitable for irrigation. The first stage, in which water was supplied to 30 farms averaging 660 acres plus a 2,400 acre pilot farm from the Bandicoot Bar Dam with a capacity of 80,000 acre feet, was completed in 1965. Cotton has been the principal crop but considerable interest is now being shown in grain sorghum.

Construction has now commenced on an earth and rock fill dam storing 4.6 million acre feet of water to serve a further area of 148,000 acres, approximately one third of which is located in the Northern Territory.

On the Liveringa flood plain, water is diverted from the Fitzroy River into a dam on Uralla Creek, which together with a natural storage of about 1,200 acre feet, provides for irrigation at Camballin 65 miles south-east of Derby. Grain and fodder sorghums are grown in the area.

AREA OF LAND IRRIGATED: WESTERN AUSTRALIA, 1964–65 TO 1968–69

(Acres)

Season	*Vegetables*	*Fruit*	*Vineyards*	*Cotton*	*Other crops(a)*	*Pastures*	*Total*
1964–65 . .	9,379	11,710	1,081	5,496	5,259	30,110	63,035
1965–66 . .	9,944	11,566	844	8,307	6,707	30,039	67,407
1966–67 . .	9,770	11,704	795	11,892	4.676	31,790	70,627
1967–68 . .	10,148	12,808	634	11,782	2,992	35,116	73,480
1968–69 . .	9,740	13,059	749	8,327	3,847	35,856	71,578

(*a*) Includes fodder crops.

Country water supplies controlled by Department of Public Works and Water Supply

Since 1947 enlargement and extensions of the Goldfields and Agricultural Water Supply and the development of the Great Southern Towns Water Supply have been carried out, mainly in accordance with a project known as the Modified Comprehensive Scheme. Under this scheme water has been supplied to towns and farms in an area of five million acres in mixed farming (cereal and sheep) districts of Western Australia. The modified scheme was completed in 1961 at a cost of $20.6 million, of which the Commonwealth contributed $10 million under the *Western Australia Grant* (*Water Supply*) *Act* 1948. A further request was made by the State Government in 1963 for a grant of $10.5 million representing half the estimated cost of proposed extensions which would increase by 3.7 million acres the area served by the scheme. The Commonwealth agreed to provide assistance in the form of an interest-bearing loan up to a maximum of the amount requested, advances to be made during a period of eight years commencing 1965–66. Legislative authority for the loan is given by the *Western Australia* (*South-west Region Water Supplies*) *Agreement Act* 1965.

Mundaring Reservoir on the Helena River, 26 miles from Perth, is the source of water supplied to the Eastern Goldfields. It has a capacity of 62,435 acre feet and is connected to Kalgoorlie by a pipeline with extensions to towns and agricultural areas. At 30 June 1969 the Goldfields and Agricultural Water Supply was serving 105 towns and localities, and water was being reticulated to farms in an area of 4.8 million acres. The total length of pipelines was 4,197 miles and the number of services was 24,973. Consumption during 1968–69, including supplies drawn from local schemes and from the Metropolitan Water Supply, was 3,238 million gallons.

The Great Southern Towns Water Supply pipes water from Wellington Dam to towns on the Great Southern Railway from Brookton to Katanning as well as a number of other towns. At 30 June 1969 the Supply was serving 26 towns, the total length of pipelines was 536 miles, and the number of services was 8,891. Consumption during 1968–69, including supplies drawn from local sources, was 714 million gallons.

One hundred and seventeen local schemes supply water from stream flow, dams, tanks, wells, and bores, mainly to country towns. At 30 June 1969 the total length of water mains was 945 miles and the number of services was 27,481.

Other country water supplies

As well as the schemes controlled by the Department of Public Works and Water Supply, there are four local Water Boards which draw supplies from stream flow, dams, wells, and bores. In addition, some local authorities supply water within their boundaries. The Forests Department, sawmilling companies, and mining companies operate schemes to supply water to their towns. Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the railways from other sources, such as those controlled by the Department of Public Works and Water Supply and the Metropolitan Water Supply, Sewerage and Drainage Board.

Underground water

For information on underground water resources in Western Australia *see* Year Book No. 55 and earlier issues.

Tasmania

Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Year Book No. 37. (*See also* the chapter Physical Geography and Climate of this issue.)

Main purposes of water conservation and utilisation

Because of the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are permanently flowing. The only large scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately sized dams built by mining and industrial interests and by municipal authorities for town water supplies. 'Run of the river' schemes are quite adequate for assured supply in many municipalities.

Until a few years ago irrigated areas were negligible except for long established hop fields, but there is a rapidly expanding use of spray irrigation on orchards, pastures, potatoes, and beans. Until recent years there has been almost complete dependence on natural stream flows, but the need for some regulating storages has become apparent. Increasingly, farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water suitable for stock, minor irrigation works and domestic use is exploited in the consolidated rocks of southern, midlands and north-western Tasmania. In the south and midlands nearly all groundwater is obtained from Permian and Triassic rocks. In the north-west, water is recovered from a variety of rocks ranging from Precambrian dolomites, quartzites and schists to Tertiary basalts and Quaternary sands. The highest yields are obtained from the dolomites and the basalts.

In the central north and north-east unconsolidated Tertiary clays and gravels yield water of variable quality, and in some coastal areas, notably King and Flinders Islands, water is obtained from Aeolian sands.

The Mines Department is charged with the investigation of underground water resources and is currently drilling in the Longford (central north) and Scottsdale-Bridport (north-east) Tertiary areas, and is also examining the prospects of coastal sand supplies on the East Coast.

Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey, and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. The State's largest rivers discharge in the west, but diversion to the eastern half of the watersheds is not regarded as practicable.

Administration

In Tasmania, water supply was once exclusively the responsibility of local government authorities, but two statutory authorities, the Metropolitan Water Board and the Rivers and Water Supply Commission, now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart and Launceston regions, and directly to certain industrial consumers.

Metropolitan Water Board. The overall control of the supply of water to the cities of Hobart and Glenorchy and the municipalities of Kingborough and Clarence is vested in the Metropolitan Water Board, the local government authorities retaining primary responsibility for reticulation and sale to consumers. Water is also supplied by the Board to urban areas in the Sorell, New Norfolk and Brighton municipalities. The major source of water is the River Derwent at Lawitta, where two pumping stations are installed. The Metropolitan Water Board controls two schemes, the West Derwent Water Supply and the Southern Regional Water Supply. The first was originally constructed to serve Hobart, Glenorchy, Kingborough and Clarence; the second constructed by the Rivers and Water Supply Commission, but now under the control of the Board, serves that portion of Greater Hobart situated on the eastern shore of the River Derwent. The responsibility for raising loans and debt servicing necessary to meet the capital cost of constructing and adding to the schemes rests with the Metropolitan Water Board.

Rivers and Water Supply Commission. The Commission is empowered by the *Water Act* 1957 to take water at streams and lakes, or to issue others with licences to do so; licensing covers supply to specific industries and municipalities as well as irrigation. The Commission is concerned with drainage trusts' operations, river improvements (including repairs after flood damage), stream gauging, its own regional water schemes, and with water supply, sewerage and drainage of towns. It operates in a similar manner to the Metropolitan Water Board in controlling the water schemes serving the East Tamar region (North Esk Regional Water Supply), the West Tamar area (West Tamar Water Supply) and the Prosser River Scheme which supplies water to a sodium alginate industry at Louisville near Orford and supplements the water supply of the township of Orford. The North Esk Regional Water Supply was constructed to meet industrial requirements of the aluminium refinery and other industries at Bell Bay and to provide bulk supplies to surrounding municipalities on the eastern bank of the River Tamar. The West Tamar Water Supply was constructed primarily to meet domestic requirements of urban areas in the Beaconsfield municipality. The local government authorities retain primary responsibility for reticulation and sale to consumers, except to certain industrial users.

In municipalities not serviced by the Metropolitan Water Board or the Rivers and Water Supply Commission, the supply of water is a function of the local municipal council. Where the construction of water and sewerage schemes is beyond the financial capacity of a local government authority, or if it requires assistance to pay for water supplied from regional schemes, the Commission may make recommendations to the Minister for payment of a subsidy.

Industrial water schemes

Four principal industrial water schemes have been installed privately—for a paper mill near Lawitta on the Derwent River, for a paper mill at Burnie using water from the Emu River, for another at Wesley Vale using water from the Mersey River, and for a factory at Heybridge reticulating water from Chasm Creek. The State Government has constructed some water schemes for use primarily for industrial purposes. These include the scheme serving the aluminium refinery at Bell Bay referred to above, a storage supplementing the summer flows of the Kermandie River for use by a wood-pulping plant at Geeveston, and the Prosser River Scheme referred to above.

Irrigation

There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing several schemes, notably in the Huon region, and the valleys of the Jordan, Coal and Meander rivers. An irrigation scheme for the Cressy–Longford area, utilising water from the tail-race of the Hydro-Electric Commission's power station at Poatina, was recently approved. The *Water Act* 1957 provides for irrigation works to be undertaken by municipalities and by trusts constituted for the purpose. With the exception of the privately owned Lawrenny estate at Ouse, which is the largest single area under irrigation in the State, there are no extensive schemes utilising one common source of water supply in Tasmania. The larger portion of the area under irrigation is watered by private schemes pumping water from natural streams.

AREA OF LAND IRRIGATED, 1964–65 TO 1968–69
(Acres)

Season	*Vegetables*	*Fruit*	*Hops*	*Other crops(a)*	*Pastures*	*Total*
1964–65 . . .	8,302	5,955	1,553	4,318	14,194	34,322
1965–66 . . .	12,994	7,241	1,524	5,786	17,651	45,196
1966–67 . . .	12,979	8,287	1,495	6,353	18,111	47,225
1967–68 . . .	17,303	9,042	1,587	9,132	29,182	66,243
1968–69 . . .	17,013	8,157	1,550	6,369	23,167	56,256

(*a*) Includes fodder and fallow land.

Northern Territory

Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Year Book No. 37, and in this issue information on climatic conditions will be found in the chapter Physical Geography and Climate, and a brief outline of contour and physical characteristics in the chapter The Territories of Australia.

Administration

Under the *Control of Waters Ordinance* 1938–1965 of the Northern Territory, natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and the diversion of water is prohibited except under prescribed conditions. The Ordinance requires that drilling for ground-water be carried out only by drillers who are registered under the Ordinance. Registered drillers are required to provide the Government with information on bores drilled including the location, depth and size of bore, strata encountered and water produced. In particular areas where stricter control is necessary the construction or use of a well or water bore without a permit can be prohibited.

Under the *Water Supplies Development Ordinance* 1960–1963 any landholder engaged in pastoral or agricultural production may seek information or advice from the Commissioner of Water Development who is appointed under the Ordinance. He may also apply for an advance towards the cost of work proposed to be carried out. The Ordinance also provides for a refund to the landholder of the cost of drilling an unsuccessful bore where the landholder had applied to the Commissioner for advice on its construction and has carried out all drilling operations in accordance with advice given.

There is a Mines and Water Resources Branch of the Northern Territory Administration under the control of a Director. The Water Resources Section of this Branch carries out systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies and flood prevention and control. It also provides a general advisory service to the public on water resources and water conservation by providing information on the geology of the country, the prospects of obtaining ground-water, the possible location of bore sites, the method of drilling and equipping bores, information on stream flows, surveys of dam sites, the design of water supply schemes and reticulation layouts and on the chemical and bacteriological quality of water supplies.

Underground water

For information on underground water resources in the Northern Territory *see* Year Book No. 55 and earlier issues.

Irrigation

There are no large water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between the Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for additional water from Darwin River to augment Darwin's water supply have been completed, and work will soon commence on the Darwin River Dam. Groundwater is being pumped from McMinns Lagoon area to augment the supply.

The hydrological investigations required in the Northern Territory as part of the National Water Resources Assessment Programme are being carried out by the Mines and Water Resources Branch. A network of base gauging stations is being built and operated for this purpose, and the results will help development planning as well as providing data for environmental scientists. In particular areas of development where water supply or irrigation proposals require surface water data, supplementary gauging stations are being built to obtain this information. Since the start of stream-gauging activity in the Northern Territory the Branch has established 338 gauging stations. At 1 July 1969, the Northern Territory stream-gauging network comprised 241 operating stations; of these, 164 were base stations for measuring stream flow and 77 were supplementary stations.

Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River, Wickham River, Douglas River, Edith River and Alice Springs areas, with only small acreages being utilised. In the Territory 56 licences to divert water from streams were current at the end of 1969. The total licensed area for irrigation is 4,250 acres, but the actual area irrigated is less than this. There are also a number of farms irrigated from bore supplies, particularly in the Alice Springs area. Purposes for which irrigation water is used include the growing of fruit, vegetables, crops and pastures, and also dairying and mixed farming. The Commonwealth Scientific and Industrial Research Organisation is conducting experiments on rice growing in the coastal plains of the Adelaide River.

Both the Daly and Adelaide Rivers appear to offer considerable potential for irrigation development with regulation of the rivers. Extensive investigations are being conducted into possible dam sites and areas of land suitable for irrigation in the region. Irrigation trials are in progress using water from the high-production bores in the Daly Basin. Further exploratory drilling in this area is being carried out.

Papua and New Guinea

Rainfall in Papua and New Guinea varies considerably from approximately 240 inches near Lindenhafen (New Britain) and 230 inches at Kikori (Papua) to about 70 inches near Marienburg (New Guinea) and 40 inches at Port Moresby (Papua). For a general description of these territories *see* Chapter 29, The Territories of Australia of this Year Book. Irrigation has not been developed on any organised basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet, but complete data regarding water resources are not available. During 1968–69 the Commonwealth Government continued to implement the policy of establishing a national network of stream-gauging stations which can be used in assessing the water resources of the Territory, while continuing to collect hydrological data for specified proposed hydro-electric projects.

The largest rivers in the Territory include the Fly (700 miles long, situated in the western division of Papua), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles), and the Markham (110 miles). The main water conservation interest in New Guinea at present is the hydro-electric potential, which is extensive. An outline of schemes at present in operation is given in Chapter 28, Electric Power Generation and Distribution.

CHAPTER 25

FORESTRY

For further details on subjects dealt with in this chapter *see* the annual bulletins *Non-Rural Primary Industries* and (for sawmills, etc. operations) *Manufacturing Industry*.

Source of statistics

Statistics relating to forestry are, in general, provided by the various authorities concerned with forestry administration. Particulars of forest reservations contained in this chapter have been collected by the Statisticians of the various States, mainly from information provided by the State forestry authorities. Other information on forested areas, together with certain other data, has been provided by the Commonwealth Forestry and Timber Bureau. Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States; manufacturing industry statistics for 1968–69 are not yet available; *see* page 709. Figures of production of gums, resins and tanning barks have been provided by the State forestry authorities. Data of imports and exports of forest products and timber and timber products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the statistics of overseas trade. The figures shown relate, in general, to years ended 30 June.

Forestry in Australia

Objects of forestry

The main object of forestry authorities is to manage the forests of the country in a manner that will provide the maximum benefits, both direct and indirect. Direct benefits include the provision of essential commercial commodities such as structural timber, pulpwood, plywood, veneers, firewood, bark products, tars, oil, and resins. Indirect benefits include protection of soil and stock from wind and exposure, regulation of stream flow, provision of recreational facilities, and aesthetic effects. Forestry also aims at improving existing forests and woodlands by properly controlled harvesting, by protection from such destructive agencies as fire and insect attack, and by inducing regeneration where it is desirable. The provision of a partial tree cover on denuded lands where this cover is necessary for protective purposes, and a complete cover when the land is better under forest than under any other land use, are further aims of forestry.

General account of forests and timbers

The area of land in Australia suitable for the production of commercial timber as a primary crop is very small in comparison with the size of the continent. Broadleaved forests (hardwoods) cover 97 per cent of the total forested area, and approximately 94 per cent of the broadleaved forest area is occupied by eucalypts.

Eucalypts. The genus *Eucalyptus* is remarkable in that it includes over 600 species, ranging in size from the mighty forest giants, mountain ash (*E. regnans*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia, down to the small mallee species which inhabit vast areas of the inland. The habitats range from the dry inland areas to the high mountain areas in the Australian Alps, from areas with the annual rainfall as low as 10 inches to those where it is 150 inches. Of the 600 species, only about 100 are used for sawmilling, and not more than 40 of these are exploited extensively.

The better class of eucalypt forest is concentrated mainly in the higher rainfall areas such as the east coast, the highlands of southern New South Wales, Victoria and Tasmania, and the south-western corner of Western Australia. The more important species include blackbutt (*E. pilularis*), tallowwood (*E. microcorys*), flooded gum (*E. grandis*), and red mahogany (*E. resinifera*) of New South Wales and Queensland; alpine ash (*E. delegatensis*) of New South Wales, Victoria and Tasmania; mountain ash (*E. regnans*), messmate (*E. obliqua*) and blue gum (*E. bicostata*) of Victoria and Tasmania; and karri (*E. diversicolor*) of Western Australia. For height and grandeur, mountain ash and karri are unequalled among the broadleaved trees of the world and are excelled only by a few North American coniferous (softwood) species.

In the coastal regions with lower rainfall the eucalypt forests contain many durable species such as the ironbarks, grey gums and bloodwoods of the east coast, and jarrah (*E. marginata*) and tuart (*E. gomphocephala*) of Western Australia. The spotted gum (*E. maculata*) occurring in New South Wales and Queensland is another example.

Along most of the inland streams and adjacent flood-plains there are riverain forests consisting mainly of river red gum (*E. camaldulensis*), a very durable broadleaved tree which has supplied large quantities of sawn timber, railway sleepers and fence posts.

Eucalypts also occur in open forest and savannah woodland formations in areas receiving a reliable rainfall of about 10 to 20 inches per annum, as on the goldfields of Western Australia where salmon gum (*E. salmonophloia*), brown mallet (*E. astringens*) and wandoo (*E. wandoo*) occur. These forests are of considerable value for firewood, as mining timbers and for fencing. Minor forest products such as sandalwood, tan bark, essential oils, etc., also come from isolated areas in this type of country, and in the more arid areas.

In 1968–69 the volume of eucalypt sawn wood produced was 960 million super feet.

Other broadleaved timbers (*hardwoods*). Broadleaved genera other than *Eucalyptus* cover a comparatively small portion of the forested land in Australia; however, the areas concerned provide a great variety of timbers suitable for a multitude of uses. There are two basic types of forest containing supplies of broadleaved timbers other than eucalypts, namely, the tropical and sub-tropical rainforests of coastal New South Wales and Queensland and the temperate rainforests of southern Victoria and Tasmania, both of which yield species known collectively as rainforest or brushwood species. The total volume of brushwood species produced in 1968–69 was estimated at 85 million super feet, i.e. about 8.1 per cent of the total broadleaved timber cut in Australia.

The tropical and sub-tropical rainforest along the eastern coast of Australia contains a large number of different species. Tropical rainforest occurs in northern Queensland in the vicinity of Cairns and on the Atherton Tableland, providing such well-known cabinet woods as Queensland maple (*Flindersia brayleana*), Queensland walnut (*Endiandra palmerstonii*) and the silky oaks. The sub-tropical rainforest found in southern Queensland and northern New South Wales yields the tulip oak, crab apple (*Shizomeria ovata*) and white beech (*Gmelina leichhardtii*). Coachwood (*Ceratopetalum apetalum*) and sassafras (*Doryphora sassafras*) occur in regions to the south near Dorrigo and have yielded valuable timber for many years.

Turpentine (*Syncarpia glomulifera*), an excellent harbour pile timber resistant to marine borer attack, and brush box (*Tristania conferta*), a superior structural and decking timber, are found in association with some eucalypts in the wetter rainfall areas on the north coast of New South Wales and in southern Queensland.

Temperate rainforest which is to be seen in southern parts of Victoria and western Tasmania consists of myrtle beech (*Nothofagus cunninghamii*), but produces also southern sassafras (*Atherosperma moschata*) and blackwood (*Acacia melanoxylon*).

Conifers (*softwoods*). One of the most important species of native conifers is white cypress pine (*Callitris hugelii*). The main cypress pine forests of commercial value occur in New South Wales and southern Queensland west of the Great Dividing Range. The trees are comparatively small, but the timber has particular value owing to its durability and resistance to termites. It is suitable for use as scantlings, flooring, linings, weatherboards, poles, and posts. As much of the area originally covered by cypress pine has been cleared for wheat farming and grazing, the production from the remaining State forests is now strictly regulated to ensure a continuous supply. The volume of cypress pine cut in 1968–69 was approximately 60.4 million super feet.

Another important native conifer is hoop pine (*Araucaria cunninghamii*), which occurs naturally in the sub-tropical rainforest of southern Queensland and northern New South Wales associated with tulip oak, crab apple, white beech, coachwood, and sassafras. The greater part of the original hoop pine forests has been exploited, but considerable areas have been replanted to this species in Queensland and, to a lesser extent, in New South Wales.

Other native conifers which have played a useful but minor part in the Australian timber industry include bunya and kauri pines (*Auracaria bidwillii* and *Agathis palmerstonii*) of Queensland, and celery-top, Huon and King William pines (*Phyllocladus asplenifolius*, *Dacrydium franklinii* and *Athrotaxis selaginoides*) of Tasmania. Kauri pine is found in the tropical rainforest of northern Queensland in association with non-eucalypt broadleaved trees, while bunya pine occurs in the sub-tropical rainforests. In the temperate rainforests of Tasmania celery-top, Huon and King William pines are found in association with myrtle beech, southern sassafras and blackwood.

Extent of forested areas

Estimates prepared for the Ninth British Commonwealth Forestry Conference held in India in 1968 show the total area of forest in Australia as 599.7 million acres, or about 32 per cent of the total land area of the continent. In making these estimates the Food and Agriculture Organization definition of 'forest' (published in *World Forest Inventory*, 1958, page 123) was used. This definition includes areas of sparse or stunted tree growth, classified as 'woodland' in the following table, and in the case of Australia some four-fifths of the total forest area falls into this category. If 'woodland' is excluded from total forested area a more realistic assessment of real forest area of 87.7 million acres is obtained.

CLASSIFICATION OF FOREST AREA(*a*): AUSTRALIA

(*Source:* Forestry and Timber Bureau)

('000 acres)

Type of forest	*Area*
LANDS	
Economically exploitable forest land—	
Productive forests—	
Coniferous (softwood)(*b*)	3,021
Other(*c*)	34,166
Total, productive forests	*37,187*
Non-productive areas—unstocked(*d*)	11,455
Not economically exploitable forest land	39,038
Woodlands(*e*)	512,010
Total, forested area	**599,690**
OWNERSHIP OF ACCESSIBLE FORESTS	
Publicly-owned forests—	
State forests	29,699
Other forests	22,472
Total, publicly-owned forests	*52,171*
Privately-owned forests	29,191
Ownership not yet determined	290,166
Total, accessible forests	**371,528**

(*a*) Date of inventory 30 June 1965. (*b*) Includes exotics, cypress, and other indigenous pines. (*c*) Includes broadleaved and mixed woods. (*d*) Areas enclosed or within or adjacent to forest land, but which are kept cleared of tree cover for management reasons or 'are temporarily free' of tree cover. (*e*) All lands dominated by trees which for ecological and botanical reasons are not now capable of producing economic forest products.

Forest reserves

The distribution of forest reserves is shown by States in the following table. Detailed comparisons between States are not possible because of the lack of uniform definitions.

FOREST RESERVES: STATES AND TERRITORIES 31 MARCH 1969

(*Source:* Forestry and Timber Bureau)

('000 acres)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.(a)*	*Tas.*	*N.T.*	*A.C.T.(b)*	*Aust*
Production reserves(*c*)—									
Productive	8,407	4,174	8,927	245	4,069	2,631	11	29	32,627
Unproductive		1,379	..	27	..	1,906	..	..	
Unstocked		116	..	..	706	..	..	..	
Total, production reserves	*8,407*	*5,669*	*8,927*	*272*	*4,775*	*4,537*	*11*	*29*	*32,627*
Protection reserves(*d*)—									
Productive	20	..	..	2	33	233	1,478	13	4,821
Unproductive	..	499	2,343	19	55	..		97	
Unstocked	..	..	..	..	28	1		..	
Total, protection reserves	*20*	*499*	*2,343*	*21*	*116*	*234*	*1,478*	*110*	*4,821*
All other reserves, productive, unproductive and unstocked	1,038	151	..	..	..	..	(*e*)	..	1,189
Total area, all reserves	**9,465**	**6,319**	**11,270**	**293**	**4,891**	**4,771**	**1,489**	**139**	**38,637**

(*a*) South-west zone only. (*b*) Managed forests. (*c*) Land 'permanently' reserved by law for the production of timber for commercial purposes. (*d*) Land managed principally for the protection of natural resources (e.g. parks, scenic areas, water sheds, soil conservation areas). (*e*) Excluded are Aboriginal Reserves totalling 29,286,000 acres which are estimated to be 90 per cent forest.

Categories of forest reserves

(i) *Production reserves* consist of forest lands 'permanently' reserved—by law whether Federal, State or local—for the production of logs, pulpwood, pit props, poles, posts or fuelwood for commercial purposes.

(ii) *Protection reserves* consist of reserved lands, the management of which is principally aimed at the protection of natural resources, of fauna and flora, or at other purposes not directly related to the production of wood (e.g., parks, watersheds, soil conservation areas, etc.). Industrial cutting may or may not be allowed in these Protection reserves. Industrial cutting includes the cutting of logs, pulpwood, pit props, poles, posts, fuelwood for commercial purposes. The production of logs for the production of sawnwood for local consumption is considered as industrial cutting; however, the cutting of poles and fuelwood for personal consumption on a casual or occasional basis is not considered as an industrial cutting.

(iii) *All other reserves* consist of reserved forest lands not included above.

A considerable proportion of the permanently reserved areas is in inaccessible mountainous country, and many of the forests contain a mixture of species, only some of which are at present of commercial value. Much of the area consists of inferior forest, and a large proportion of the whole has been seriously degraded by recurrent fires.

Plantations

The indigenous forest of Australia does not contain adequate supplies of coniferous timber, and Australia's requirements have had to be met largely by imports. As a result of the planned policy of the forest services and of several private commercial organisations, the area of coniferous plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a larger area of planted conifers than most other States in Australia, and for some years has been exploiting considerable quantities of timber from these plantations. Production is also increasing in the other States, and the thinnings from their plantations are already supplying a significant volume of timber.

The total production of roundwood from Australia's coniferous plantations is now more than 80 million cubic feet per annum and is expected to increase substantially during the next decade.

A special article prepared by the Forestry and Timber Bureau giving a detailed account of the history and development of coniferous plantations and of the characteristics of individual species is included in Year Book No. 44, page 975.

Broadleaved plantations (mainly *Eucalyptus spp.*) comprise a much smaller area, and the total acreage at 31 March 1969 was about 60,000 acres, about one-third of which was brown mallet (*E. astringens*). Plantations of this species have been established in Western Australia for tan bark production.

AREA OF CONIFEROUS PLANTATIONS, BY TYPE OF PLANTATION

(*Source:* Forestry and Timber Bureau)

(Acres net)

	Government			*Private*			
State or Territory	*Pinus radiata*	*Other species*	*Total*	*Pinus radiata*	*Other species*	*Total*	*Grand total*
31 March 1969—							
New South Wales	127,440	23,284	150,724	11,095	16,889	27,984	178,708
Victoria	77,803	8,917	86,720	114,097	917	115,014	201,734
Queensland	3,712	141,347	145,059	842	34,802	35,644	180,703
South Australia	142,988	14,107	157,095	39,502	16	39,518	196,613
Western Australia(*a*)	23,763	35,009	58,772	2,073	188	2,261	61,033
Tasmania	35,338	424	35,762	14,764	3	14,767	50,529
Northern Territory	. .	2,965	2,965	. .	50	50	3,015
Australian Capital Territory	27,053	2,238	29,291	. .	. .	. .	29,291
Australia, 31 March 1969	**438,097**	**228,291**	**666,388**	**182,373**	**52,865**	**235,238**	**901,626**
31 March—							
1968	395,215	207,176	602,391	161,326	47,224	208,550	810,941
1967	368,597	196,564	565,161	147,053	40,415	187,468	752,629
1966	342,135	184,143	526,278	139,071	36,328	175,399	701,677
1965	323,212	177,447	500,659	141,570	28,900	170,470	671,129

(*a*) South-west zone only.

Forest administration and research

Commonwealth Forestry and Timber Bureau. The functions of the Commonwealth Forestry and Timber Bureau are laid down in the *Forestry and Timber Bureau Act* 1930–1953 and include forestry research and education, the study of timber supply, and advice to the Government on forestry matters. The administrating department is the Department of National Development.

In 1961 the Commonwealth Government expanded its activities in forestry research in Australia. The existing Forestry and Timber Bureau Divisions of Silvicultural Research and Forest Management Research were combined to form the Forest Research Institute as a separate branch of the Bureau. The purpose of the Institute is to provide complete coverage in forestry research, ensuring that all problems of primary importance to the practice and development of forestry in Australia are investigated. In developing a programme with this objective, the Institute takes account of the research activities and potential of the State forest services and other organisations. The research work carried out by the existing sections of the Forest Research Institute covers a wide range of studies, including the following: factors affecting tree growth, tree breeding, introduction of exotic species, forest nutrition, forest botany, forest entomology and pathology, fire protection, watershed management, forest mensuration, forest management and management economics, aerial inventory, biometrics, and tree seed. The Forest Research Institute maintains six regional establishments in the Commonwealth, two of which have an outstation in addition to the regional headquarters. These regional stations are run on a co-operative basis with State forest services and private forest companies or other government instrumentalities.

The Forestry and Timber Bureau also maintains a Timber Supply Economics Branch concerned with the compilation and analysis of statistics of production, consumption and trade in timber and other forest products. This Branch also carries out studies in forest economics and research into logging methods and machines. Advice on timber supply matters is currently made available to government departments and private enterprise. Research is also undertaken on matters associated with the marketing of timber products.

Commonwealth Scientific and Industrial Research Organization, Division of Forest Products. The Division of Forest Products was formed in 1928 to carry out investigations into Australian forest products, assist in the effective use of such products, reduce waste, reduce losses from decay and insect attack, and conduct research into the fundamental chemical, physical and mechanical properties of Australian timbers.

The research work of the Division is carried out by eight separate sections: wood and fibre structure, wood chemistry, timber physics, timber mechanics, timber preservation, timber seasoning, plywood and glueing, and timber utilisation. In addition, the Division provides assistance to individuals and local industry, administers courses of instruction on timber properties and usage, and maintains co-operative projects with several overseas authorities operating in the same field.

Forestry in the Territories. Forestry activities in the Territory of Papua and New Guinea are controlled by the Administration through its Department of Forests. The management of forests in the Australian Capital Territory is the responsibility of the Forestry Branch of the Department of the Interior.

The Forestry and Timber Bureau advises the Administrations of the Australian External Territories on the management of the forests in those Territories. Forests in the Northern Territory are under the control of the Forestry Branch of the Northern Territory Administration.

Forestry activities of the States. Forestry on State-owned lands in the various States is the responsibility of the respective State Governments, but they do not exercise any control over forestry activities on private property. The powers and functions of State forest authorities are laid down under forest Acts and Regulations. In each State there is a department or commission to control and manage State forests. Its functions include the introduction of proper measures for the control and management of forest land; the protection of forest land; the conversion, marketing and economic utilisation of forest products; the securing of an adequate and permanent reservation of State forests; and the establishment and maintenance of coniferous forests to remedy the existing deficiency of conifers in Australia. All State forest services are actively engaged on research programmes. Annual reports are issued by each State forest authority.

In addition to developing permanent forest reserves in each State, foresters are surveying all forested Crown lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release for other uses areas unsuitable for forestry. State forest authorities control over 15 million acres of timber reserves, national parks, etc. They also usually control all timber on unoccupied Crown lands.

Private forestry. Privately owned lands contribute considerably to the total production from Australian forests. The most important areas of managed native forest in private ownership are the forests owned by pulp and paper companies. Schemes of financial assistance to individual land owners—designed primarily to encourage establishment and management of coniferous plantations—have been introduced by the Governments of New South Wales and Victoria.

The area of privately owned coniferous plantations is rapidly increasing, and here again the pulp and paper companies are very active. In step with the increase in afforestation programmes, the number of professional foresters employed in private forestry enterprise is increasing, while several are engaged on research.

The area of coniferous plantations established by private companies and individuals is included in the table on page 878.

Forestry education

The functions of the Australian Forestry School at Canberra, previously a division of the Forestry and Timber Bureau, were taken over by the Australian National University at the beginning of the 1965 academic year. The school was absorbed into the University's School of General Studies as the Department of Forestry. This department provides a full four-year training leading to the degree of B.Sc. in forestry. The University of Melbourne also maintains a School of Forestry which gives training leading to a B.Sc. degree in forestry. The Universities in all States provide facilities for post-graduate studies in forestry leading to higher degrees.

The Victorian Forests Commission maintains a Forestry School at Creswick where recruits are trained, mainly for employment in the Commission.

The Australian Forestry Council

The Australian Forestry Council comprises the Ministers responsible for forestry in the six State Governments and the Commonwealth Ministers for National Development, Interior, and External Territories.

The Council is intended to provide the means for the mutual exchange between the State and Commonwealth Governments of information and views on forestry. It co-ordinates research into problems affecting the establishment, development, management, and fire protection of all forests, and the utilisation of forest products. It assists in co-ordinating the work of State and Commonwealth Governments and also private enterprise in the development of Australian forestry.

The Council is supported by a Standing Committee, consisting of the Director-General of the Forestry and Timber Bureau, the heads of each of the six State Forest Services, the Chief of the Division of Forest Products, C.S.I.R.O., the Secretary of the Department of the Interior and the Secretary of the Department of External Territories.

Fire protection

The provision of adequate fire protection is one of the main problems facing forest and rural authorities. The commercial forest area is estimated at 37 million acres with a further 39 million acres of forest not at present exploitable. The forest services maintain a high degree of protection over a relatively accessible area of about 23 million acres, about 17 million acres in the more inaccessible area receive a lesser degree of protection, and about 8 million acres are at present not protected. The remaining area of 28 million acres is mainly vacant Crown Land or is privately owned or leased, and under some degree of fire protection from the rural volunteer fire-fighting organisations or Government-financed fire protection associations.

During the 1968–69 fire season a total of 1,744 fires were recorded over the area of 40 million acres of forest land afforded either intensive or extensive protection. An area of 1,885,000 acres was burnt by these fires, which represents 4.7 per cent of the area protected.

The number of forest fires and the forest area burnt over the last ten years is shown in the following table.

NUMBER OF FIRES AND FOREST AREA BURNT 1959-60 TO 1968-69

	Protected forest areas(*a*)		
Year	*Number of fires*	*Forest area burnt*	*Percentage of forest area burnt*
		'000 acres	
1959–60	1,504	1,314	3.3
1960–61	2,667	1,294	3.5
1961–62	1,761	297	0.8
1962–63	1,299	275	0.7
1963–64	1,494	549	1.5
1964–65	2,307	1,626	4.1
1965–66	1,865	465	1.2
1966–67	1,422	388	1.0
1967–68	1,754	754	1.9
1968–69	1,744	1,885	4.7

(*a*) The area receiving protection has been taken as the 40 million acres for which State forest services provide protection.

Very intensive fire protection is afforded to the coniferous plantation area of Australia. This area is increasing rapidly and the annual planting programme is now between 60,000 and 70,000 acres. During the 1968–69 fire season a total of 2,247 acres were burnt, representing 0.29 per cent of the area of 781,000 acres for which fire statistics are available.

The area of coniferous plantations burnt during the past ten years is shown in the following table.

CONIFEROUS PLANTATIONS AREA BURNT AND TOTAL AREA, 1959-60 TO 1968-69

Year	*Area burnt*	*Area of coniferous plantations*	*Percentage of coniferous area burnt*
	acres	acres(*a*)	
1959–60	329	435,000	0.07
1960–61	507	452,000	0.11
1961–62	598	472,000	0.13
1962–63	475	492,000	0.10
1963–64	418	515,000	0.06
1964–65	3,130	556,000	0.56
1965–66	1,520	610,000	0.25
1966–67	461	660,835	0.07
1967–68	288	729,928	0.04
1968–69	2,247	781,000	0.29

(*a*) This area does not include certain privately owned coniferous forest (121,000 acres in 1968–69) for which fire statistics are not available.

Detailed information on fire protection is given in Year Book No. 55, 1969, pages 966–7.

Commonwealth loans to expand softwood plantations

In February 1965 the Australian Forestry Council recommended that the rate of expansion of softwood timber planting in Australia should be increased from their existing level of about 40,000 acres a year to 75,000 acres a year for the next thirty-five years. The recommendations envisaged a phased increase in the rate of Government plantings by the various State Governments up to a level of some 65,000 acres per annum, and an average of at least 10,000 acres per annum by private forest owners. This programme would make a major contribution towards meeting Australia's future requirements for softwood products.

In February 1966 the Commonwealth Government endorsed this recommendation and agreed, as a first step towards achieving the proposed annual target of 75,000 acres, to provide financial assistance to each State, over a five-year period commencing 1 July 1966, to enable them to accelerate their rate of softwood plantings. The assistance, which is provided to the States under section 96 of the Constitution, takes the form of long-term loans repayable over twenty-five years with repayments of principal and the payment of interest commencing ten years after the date of each advance. The *Softwood Forestry Agreements Act* 1967 authorised the Commonwealth to enter into agreements with each of the States to provide financial assistance by way of loans during the financial years 1966–67 to 1970–71 inclusive. Payments under the Act by the Commonwealth to all States in 1966–67 amounted to $291,000, in 1967–68 to $3,456,000, in 1968–69 to $3,872,000, and in 1969–70 to $4,814,000. It is estimated that $5,548,000 will be provided in 1970–71.

Employment in forestry

Persons engaged in forestry activities, 1966 census

The number of persons whose industry statements were classified to 'forestry' (excluding saw-milling) at the 1966 population census was 13,492 out of a total of 512,994 in all primary industries and 4,856,455 in the total work force. For further information *see* the chapter Employment and Unemployment, also 1966 Census Bulletin No. 9.6, *Population: by Industry and Occupational Status, Australia.*

Employment by Forestry Departments

In the table following details are shown of the number of persons employed by State forestry departments, the Northern Territory Administration, and by the Forestry and Timber Bureau in the Australian Capital Territory at 30 June 1969.

PERSONS EMPLOYED BY FORESTRY DEPARTMENTS
STATES AND TERRITORIES, 30 JUNE 1969

Occupational group	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust*
Professional staff	307	246	168	103	66	47	8	10	955
Non-professional field staff	290	202	101	3	253	106	23	2	980
Clerical staff	291	302	230	110	50	97	18	8	1,106
Extraction of timber	(*a*) 1,635	..	111	..	37	7	15	..	6,235
Milling of timber		..	..	538	42	..	6	..	
Labour (forest workers, etc.)		1,049	1,425	263	601	358	73	75	
Total	**2,523**	**1,799**	**2,035**	**1,017**	**1,049**	**615**	**143**	**95**	**9,276**

(*a*) Excludes milling of timber.

Employment in milling operations

Details of the average number of persons employed, including working proprietors, in sawmills during the year 1967–68 are shown in the next table. Further details regarding the operations of sawmills in 1967–68 are shown in the chapter Manufacturing Industry.

NUMBER OF SAWMILLS AND NUMBER OF PERSONS EMPLOYED
STATES AND TERRITORIES, 1967-68(*a*)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Number of sawmills	685	442	478	86	199	274	..	8	2,172
Average number of persons employed during year—									
Males	7,713	5,645	5,055	(*b*)	3,201	2,745	..	(*b*)	26,498
Females	392	293	302	(*b*)	191	56	..	(*b*)	1,415
Persons	*8,105*	*5,938*	*5,357*	(*b*)	*3,392*	*2,801*	..	(*b*)	*27,913*

(*a*) Statistics for 1968–69 are not yet available, *see* page 709. (*b*) Not available for publication; included in Australian total.

Forest production

Forest products

FOREST PRODUCTION(*a*): STATES AND TERRITORIES, 1968-69

Product		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Logs for sawing, peeling, slicing, or pulping—										
Forest broadleaved	'000 cu ft	55,147	75,158	22,260	680	43,188	57,914	19	..	254,366
Brushwoods and scrubwoods	,,	4,186	..	9,085	..	..	..	1	..	13,272
Coniferous—										
Indigenous forest 'pines'—										
Cypress	,,	5,628	..	5,688	..	..	..	58	..	11,374
Other	,,	564	..	2,764	..	..	368	..	..	3,696
Plantation grown 'pines'	,,	9,973	16,107	5,217	27,595	2,874	1,828	..	1,537	65,131
Total logs	,,	*75,498*	*91,264*	*45,014*	*28,275*	*46,062*	*60,110*	*79*	*1,537*	*347,838*
Value of logs	$'000	*22,179*	*25,865*	*15,522*	*5,659*	*8,670*	*13,326*	*209*	*359*	*91,789*
Hewn and other timber (not included above)—										
Firewood(*b*) (weight)	'000 tons	178	268	52	430	551	367	1	..	1,847
Other(*c*) (value)	$'000	10,696	2,231	2,312	275	(*d*)1,673	119	17	12	17,335
Value of hewn and other timber	,,	11,868	3,944	2,616	2,798	(*d*)4,255	(*e*)2,559	29	12	28,081
Other forest products(*f*) (total value)	,,	322	111	274	60	(*g*) 7	(*h*)	..	..	774
Total value of forest products	,,	**34,369**	**29,920**	**18,411**	**8,518**	**(*i*)13,465**	**15,885**	**238**	**371**	**121,177**

(*a*) Excludes some production from private land, thought to be relatively small, details of which are not available. (*b*) Excludes mill waste used as firewood. (*c*) Includes sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, etc. (*d*) Excludes timber used for tannin extract, details of which are not available for publication. (*e*) Includes value of "Other forest products". (*f*) Includes charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin, etc. (*g*) Excludes value of sandalwood and substitutes, details of which are not available for publication. (*h*) Not available for publication. (*i*) Includes timber used for tannin extract and sandalwood and substitutes.

FOREST PRODUCTION(*a*): AUSTRALIA, 1964–65 TO 1968–69

Product		*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Logs for sawing, peeling, slicing, or pulping—						
Forest broadleaved	’000 cu ft	251,753	252,587	249,985	253,723	254,366
Brushwoods and scrubwoods	„	13,549	14,027	12,131	12,755	13,272
Coniferous—						
Indigenous forest ‘pines’—						
Cypress	„	13,795	12,487	11,402	12,179	11,374
Other	„	3,766	3,706	3,568	3,475	3,696
Plantation grown ‘pines’	„	56,255	59,894	61,992	59,798	65,131
Total logs	„	*339,117*	*342,701*	*339,078*	*341,930*	*347,838*
Value of logs	$’000	*86,493*	*87,804*	*88,405*	*89,778*	*91,789*
Hewn and other timber (not included above)—						
Firewood (*b*) (weight)	’000 tons	2,322	2,301	2,143	1,914	1,847
Other (*c*) (value)	$’000	15,255	17,290	15,470	16,925	17,335
Value of hewn and other timber(*d*)	„	28,537	31,177	28,106	27,712	(*e*)28,081
Other forest products(*f*) (total value)	„	1,167	782	801	851	763
Total value of forest products(*g*)	„	**116,338**	**120,589**	**117,975**	**119,004**	**121,177**

(*a*) Excludes some production from private land, thought to be relatively small, details of which are not available. (*b*) *See* footnote (*b*) to previous table. (*c*) *See* footnotes (*c*) and (*d*) to previous table. (*d*) Incomplete; *see* footnote (*d*) to previous table. (*e*) Includes "other forest products" for Tasmania. (*f*) *See* footnotes (*f*) and (*g*) to previous table. (*g*) Includes timber used for tannin extract and sandalwood and substitutes in Western Australia.

Value of production

While statistics of both the gross value (at principal markets) and local value (at place of production) of the forestry industry are available, particulars of the value of materials used in the process of production are not available for all States. For this reason values cannot be stated on a net basis, as has been done with most other industries. A more detailed reference to the value of production of forestry and other industries in Australia, as well as a brief explanation of the terms used, will be found in the chapter Miscellaneous.

GROSS AND LOCAL VALUE OF FORESTRY PRODUCTION: STATES AND TERRITORIES 1964–65 TO 1968–69

($’000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
GROSS VALUE(*a*)									
1964–65	32,539	29,167	17,777	8,846	12,093	15,326	276	314	116,338
1965–66	33,663	29,691	18,043	9,729	12,731	15,990	358	384	120,589
1966–67	31,632	29,675	17,199	8,888	13,300	16,627	303	351	117,975
1967–68	35,140	27,845	17,683	8,128	14,077	15,488	278	365	119,004
1968–69	34,369	29,920	18,411	8,518	13,465	15,885	238	371	121,177
LOCAL VALUE(*b*)									
1964–65	31,586	28,358	13,482	8,801	11,334	13,270	276	314	107,421
1965–66	32,342	28,870	13,590	9,693	11,965	13,837	358	384	111,039
1966–67	30,967	29,036	12,631	8,853	12,473	14,332	303	351	108,946
1967–68	34,160	27,448	12,948	8,100	13,274	13,420	278	365	109,993
1968–69	33,649	29,577	13,472	8,489	12,591	13,418	238	371	111,794

(*a*) Gross production valued at principal markets. (*b*) Gross production valued at place of production.

Timber and timber products

Mill production of timber

Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table. These figures have been compiled from annual factory collections, which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g. sleeper cutters.

OUTPUT OF AUSTRALIAN-GROWN TIMBER: ALL MILLS
STATES 1967-68(*a*)
('000 super ft)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total(b)*
Logs treated (gross hoppus)(*c*)—							
Broadleaved	689,357	499,225	327,363	6,800	467,028	352,122	2,341,895
Coniferous	118,497	74,030	114,586	201,805	17,121	6.926	532,965
Total, logs treated . .	*807,854*	*573,255*	*441,948*	*208,605*	*484,149*	*359,048*	*2,874,860*
Sawn, peeled or sliced timber produced from logs above—							
Broadleaved	361,219	283,184	151,617	4,006	201,993	171,912	1,173,931
Coniferous	69,934	36,718	64,050	124,085	9,643	3,254	307,684
Total, timber produced .	*431,153*	*319,903*	*215,666*	*128,091*	*211,637*	*175,165*	*1,481,615*

(*a*) Statistics for 1968–69 are not yet available, *see* page 709. (*b*) Excludes Australian Capital Territory and Northern Territory. (*c*) Gross hoppus measure is approximately 78.5 per cent of the true volume.

OUTPUT OF AUSTRALIAN-GROWN TIMBER, ALL MILLS: AUSTRALIA(*a*)
1963-64 TO 1967-68(*b*)
('000 super ft)

	1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
Logs treated—					
Broadleaved	2,681,691	2,767,843	(*c*)2,371,263	2,313,256	2,341,895
Coniferous	696,831	728,691	(*c*)569,521	554,838	532,965
Total, logs treated . . .	*3,378,522*	*3,496,535*	*(c)2,940,784*	*2,868,093*	*2,874,860*
Sawn, peeled or sliced timber produced from logs above—					
Broadleaved	1,157,175	1,203,705	1,185,831	1,151,369	1,173,931
Coniferous	330,014	329,508	331,709	317,591	307,684
Total, timber produced . .	*1,487,189*	*1,533,213*	*1,517,540*	*1,468,960*	*1,481,615*

(*a*) Excludes Australian Capital Territory and Northern Territory. (*b*) Statistics for 1968–69 are not yet available, *see* page 709. (*c*) Gross hoppus basis: not necessarily comparable with details for years prior to 1965–66, which are generally on a true volume basis.

In addition to the mill production of timber shown in the preceding tables, a large quantity of hewn and round timber, e.g. sleepers, piles, poles, fencing timber, timber used in mining and fuel, is obtained directly from forest and other areas. Complete information in respect of the volume of this output is not available.

Veneers, plywood, etc.

Cutting of timber for the manufacture of veneers, plywood, etc., has been carried out in most States for a number of years. In recent years this has been considerably extended, since plywood manufacture has allowed the use of some species unsuitable for sawing. Special attention has been paid to ensure that logs suitable for peeling are diverted to ply factories.

PLYWOOD PRODUCED: STATES, 1963-64 TO 1967-68(*a*)
('000 square feet: $\frac{3}{16}$-in basis)

State	*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
New South Wales . .	58,880	59,045	54,201	58,791	63,909
Queensland . . .	97,252	94,766	80,761	81,313	93,185
Other States . . .	60,150	63,249	52,296	60,348	71,929
Australia . .	**216,282**	**217,059**	**187,258**	**200,451**	**229,023**

(*a*) Statistics for 1968–69 are not yet available, *see* page 709.

Of the total plywood produced in 1967–68, 128,672,850 square feet ($\frac{3}{16}$-in basis) were classed as 'Commercial', 73,331,689 as 'Waterproof', 2,664,942 as 'Case', and 24,353,525 as 'Sliced fancy'.

During 1967–68, 828.8 million square feet ($\frac{1}{16}$-in basis) of veneers were produced by the rotary process for the manufacture of plywood, including 260.5 million square feet ($\frac{1}{16}$-in basis) sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 73.4 million square feet of sliced veneers were produced.

Manufactured boards

Particle board, resin or cement bonded of acoustic and other composition, amounted to 115,579,513 square feet surface measurement during 1967–68.

Wood pulp and paper

Wood pulp. During 1967–68 wood pulp production was 351,268 tons of chemical, mechanical and other pulp. During the previous year production was 357,665 tons.

Detailed information relating to the types and methods of production of wood pulp in the various States was published in Year Book No. 50, 1964, page 1110.

Paper and paper board. Paper and paper board are manufactured in all States but the greater part of the industry is in New South Wales, Victoria and Tasmania. During 1967–68 twenty-one paper mills were operating, nine in Victoria, three in New South Wales, four in Tasmania, two each in Queensland and South Australia, and one in Western Australia. A wide variety of paper and paper board is produced in Australian mills. The table below gives details of the production of some of the principal items.

PRODUCTION OF PAPER PRODUCTS: AUSTRALIA, 1965-66 TO 1967-68(*a*)

	Quantity (tons)			*Value ($'000)*		
Type of paper	*1965–66*	*1966–67*	*1967–68*	*1965–66*	*1966–67*	*1967–68*
Newsprint	93,211	97,255	92,648	12,106	13,365	12,688
Blotting	601	508	569	161	149	161
Duplicating	9,721	8,291	10,212	3,758	3,467	3,876
Printing and writing	120,540	114,992	112,780	35,818	35,704	35,952
Wrapping—						
Kraft	149,331	184,561	183,591	34,568	40,637	43,344
Other	11,114	13,942		3,850	4,960	
Paper felts	1,700	1,905	1,164	366	415	243
Paper boards	317,553	329,496	334,660	51,465	53,726	57,093

(*a*) Statistics for 1968–69 are not yet available, *see* page 709.

Overseas trade in forest products, timber and timber products

Imports

IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS
AUSTRALIA, 1966-67 TO 1968-69

		Quantity			*Value ($'000 f.o.b.)*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Wood in the rough or roughly squared	'000 sup ft	44,763	53,166	49,033	2,896	3,695	3,322
Wood shaped or simply worked—							
Timber sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—							
Conifer—							
Douglas fir	,,	177,183	171,316	195,132	16,366	16,104	21,785
Hemlock and balsam	,,	15,395	11,200	12,562	1,003	865	1,175
Radiata pine	,,	26,531	25,016	29,474	2,004	1,868	2,108
Redwood and western cedar	,,	22,414	28,905	30,065	2,728	3,851	4,455
Non-conifer	..	..	..	..	6,981	11,278	10,707
Tanning extracts of vegetable origin	cwt	79,601	74,005	96,015	550	504	565
Wood and cork manufactures (except furniture)—							
Veneers, plywoods, 'improved' or reconstituted wood and other wood, worked, n.e.s.		..	..	..	6,355	7,777	8,580
Wood, worked, n.e.s.		..	..	..	2,725	3,722	4,417
Cork manufactures		..	..	..	1,187	1,431	1,372

Imports of coniferous timbers, shaped or simply worked, came mainly from Canada and the United States of America in 1968–69. Malaysia was the source of by far the greater proportion of non-coniferous timber imports. Malaysia, Papua and New Guinea and the United Kingdom supplied most of Australia's imports of veneers, while plywood imports came mainly from Japan and Papua and New Guinea.

Exports

EXPORTS OF AUSTRALIAN FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS(*a*) AUSTRALIA, 1966-67 TO 1968-69

		Quantity			*Value ($'000 f.o.b.)*		
		1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Wood in the rough or roughly squared		. .	. .	. .	666	636	267
Wood, shaped or simply worked—							
Railway or tramway sleepers	'000 sup ft	26,023	5,621	3,312	3,280	863	522
Timber sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—							
Conifer	,,	393	574	143	95	99	37
Non-conifer	,,	11,541	9,864	13,004	1,790	1,634	2,292
Timber, planed or tongued—							
Conifer	,,	830	808	540	233	228	146
Non-conifer	,,	468	588	624	114	146	114
Cork, raw and waste	cwt	131	. .	101	13	. .	5
Plants used in dying and tanning	,,	2,590	1,920	385	8	5	3
Natural gums, resins, etc.	,,	9,180	8,160	7,569	63	66	60
Eucalyptus oil	'000 lb	308	355	205	221	269	149
Veneer wood	'000 sq ft	3,207	3,584	3,604	133	151	162
Plywood, blockboards, etc.	,,	3,383	1,749	3,637	444	416	481
Improved wood		. .	. .	. .	24	3	1
Reconstituted wood	'000 sq ft	1,153	1,106	1,262	151	147	191
Wooden beadings and mouldings		. .	. .	. .	120	61	176
Wood simply shaped or worked, n.e.i.		. .	. .	. .	33	8	24
Wood manufactures, n.e.i.		. .	. .	. .	894	715	1,242
Cork manufactures		. .	. .	. .	31	83	78

(*a*) Excludes re-exports.

CHAPTER 26

FISHERIES

Further information on subjects dealt with in this chapter is contained in the annual printed bulletin *Non-Rural Primary Industries* and in the annual mimeographed statistical bulletin *Fisheries*, particularly as regards types of fish, etc. caught.

Fisheries resources and their commercial exploitation

Fish

Approximately 2,000 species of marine and freshwater fish occur in and around Australia, about forty of which support substantial commercial fisheries. Most fishing is confined to waters over the continental shelf on the populous eastern and south-eastern seaboard, including Tasmania and South Australia, and off the south-western corner of the continent. As in other countries, fisheries in Australia may be divided into estuarine fisheries, located in the tidal waters of rivers and coastal lakes, beaches and bays; pelagic fisheries, which exploit species inhabiting the surface layers of the open ocean; and demersal fisheries, which fish the bottom layers of the sea. Estuarine fisheries produce considerable quantities of mullet (mainly *Mugil cephalus*), bream (*Acanthopagrus spp.*) and, in northern Australia, the valuable giant perch (*Lates calcarifer*). Important freshwater fisheries in New South Wales, Victoria and South Australia include those for Murray cod (*Maccullochella macquariensis*), golden perch (*Plectroplites ambiguus*) and eels (*Anguilla australis occidentalis*). Rainbow trout are farmed in Tasmania. Important pelagic fisheries include those for Australian 'salmon' (*Arripis trutta*), southern bluefin tuna (*Thunnus thynnus maccoyii*), snoek (*Leionura atun*), mackerel (*Cybium spp.*) and clupeoids (*Sardinops neopilchardus* and *Engraulis australis*). Demersal fisheries include those for snapper (*Chrysophrys auratus*), whiting (*Sillaginidae*) and the so called 'cods' (*Epinephelus,* etc.) from tropical waters. Trawl fisheries off New South Wales and Victoria yield species such as flathead (*Neoplatycephalus* and *Trudis spp.*), morwong (*Nemadactylus spp.*) and John Dory (*Zeus faber*). There is also an important fishery for edible shark (*Galeorhinus australis* and *Mustelus antarcticus*) in south-eastern Australia. A fishery for clupeoids in the Bass Strait which supplies the raw material for a fish meal plant at Lakes Entrance, Victoria, is the only 'industrial fishery' in Australia.

Crustaceans

The western and southern rock lobsters (*Jasus lalandei* and *Panulirus cygnus*) which are taken on rocky reefs around the southern half of Australia, provide the most valuable fishery in Australia. Prawns (*Penaeus* and *Metapenaeus spp.*) are taken in estuarine, coastal and offshore waters of all States except Tasmania. This fishery has grown rapidly in recent years, especially in northern Australia. Bay lobsters (*Thenus spp.*) are taken incidentally to prawn trawling operations. Crabs (*Scylla* and *Portunus spp.*) are taken mainly in Queensland, New South Wales and Western Australia.

Molluscs

Naturally occurring oysters are harvested in all States, and in New South Wales edible oysters (*Crassostrea commercialis*) are cultured commercially. There is limited culture of other species in Queensland and Tasmania. Despite a serious decline in catches in recent years, the major scallop (*Pecten alba*) fishery is that based on stocks in Port Phillip Bay, Victoria. A fishery based on the scallop (*Amusium balloti*) is developing in Western Australia, and there are also smaller fisheries in Queensland and Tasmania. An important abalone fishery has been developed since 1964 in south-east Australia with South Australia, Tasmania and Victoria providing the bulk of the catches. Mussels (*Mytilus planulatus*) are harvested in Victoria, and small quantities of cephalopods, mainly squid, are produced in many localities.

Pearl-shell and trochus-shell

The shell of the Australian species of pearl oyster (*Pinctada maxima*) is taken in the tropical waters of Australia from Exmouth Gulf in Western Australia to Cairns in Queensland for the manufacture of buttons, knife handles, etc. Live pearl-shell is used for pearl culture, *Pinctada maxima* being capable of producing pearls which are the largest in the world and which command top market prices. Trochus-shell is found mainly on coral reefs off the Queensland coast, although small quantities occur in Western Australia.

Whales

The Australian whaling industry formerly exploited the baleen (humpback) whales during their winter migrations along the east and west coasts of Australia. However, owing to the total prohibition placed on their capture by the International Whaling Commission in 1963, Australian whaling is now confined to the sperm whale (*Physeter catodon*) which has been taken in the southern waters of Western Australia since 1955.

Marine flora

Seaweeds of possible commercial value occur in the coastal waters of New South Wales, Tasmania, South Australia, and Western Australia. At Triabunna, Tasmania, a factory is processing seaweed (*Macrocystis pyrifera*) for its alginate content.

General

A map showing Australia's principal ports and localities of the fishery resources under exploitation appears on plate 46, page 890. Detailed information on the history of the development of fisheries industries in Australia is given in Year Book No. 55, pages 976–7.

Fisheries administration and research

The Constitution of the Commonwealth (Section 51 (x)) assigns to the Commonwealth power to legislate for fisheries in Australian waters beyond territorial limits, the residual power in respect of waters within territorial limits (including inland waters) resting with the States. The Commonwealth has made similar arrangements for each of its Territories. Each State and Territory has legislation regulating fisheries in waters within its jurisdiction. Persons taking fish for sale, and their boats, are required to be licensed, and provision is made for management of the fisheries.

The Commonwealth laws regulating the fisheries are the *Fisheries Act* 1952–1968, the *Continental Shelf (Living Natural Resources) Act* 1968 and the *Whaling Act* 1960–1966. Each of these applies in accordance with the Commonwealth's fishery power under the Constitution.

Fisheries Act

This Act requires persons engaging in fishing and boats used for fishing to be licensed and their equipment for taking fish to be registered if the purpose of the fishing is commercial. It also provides for management and conservation of the fisheries. The Act applies to Australian residents and their boats in waters proclaimed under the Act and, since 1968, to foreign boats and their crews in the zone of waters extending 12 miles from the baselines of the territorial sea but excluding waters within territorial limits, where State law applies.

Continental Shelf (Living Natural Resources) Act

This Act implements in Australian law the sovereign rights, conferred on Australia in respect of the organisms belonging to sedentary species (that is, organisms which, at the harvestable stage, either are immobile on or under the seabed, or are unable to move except in constant physical contract with the seabed or the subsoil) on the continental shelf. The continental shelf comprises the seabed and subsoil of the submarine areas adjacent to the coast but outside the territorial sea to a depth of 200 metres, or beyond that depth where the depth of the superjacent waters admits of the exploitation of the natural resources of the area, by the Convention on the Continental Shelf, Geneva, 1958. The Act requires the licensing of persons searching for and taking sedentary organisms, of boats used to search for and take sedentary organisms, and of persons employing divers, trial divers and divers' tenders in taking sedentary organisms, if such activities are carried out in controlled areas of the continental shelf of Australia or the Territories for a commercial purpose. Provision is made for proclamation of sedentary organisms to which the Act applies, for the establishment of controlled areas of continental shelf in respect of specified sedentary organisms, and for the management and conservation of sedentary organisms in controlled areas (the last of these applying to all persons whether the purpose of the taking of the sedentary organism was commercial or not.) The Act applies to all persons including foreigners, and to all boats including foreign boats.

Whaling Act

This Act implements in Australian law the obligations imposed on Australia by virtue of our adherence to the International Convention for the Regulation of Whaling, Washington, 1946. The Act requires the licensing of factories engaged in treating whales and of ships (and aircraft) used for taking whales. It also provides for the management and conservation of whale stocks.

Administration

Australian fisheries are administered by the authority having jurisdiction over the waters concerned. In inland waters and in waters within territorial limits, administration is the responsibility of the State or Territory fisheries authority. In proclaimed waters, and on the continental shelf beyond territorial limits, administration is the responsibility of the Commonwealth which, by agreement, has delegated to State fisheries authorities the necessary authorities for day-to-day administration of the Acts.

The administration of the fisheries is directed to a number of objectives, of which the two most important are conservation of the living resources in order to ensure their ability to sustain a maximum yield consistent with economy in their exploitation and the orderly conduct of the fishing industry. Fishery resources are common property and apart from fisheries such as those for rock lobster, where the numbers of boats and the quantities of fishing gear are controlled, the only other restrictions on the entry of boats into the Australian fishing industry are those relating to foreigners, and to processing and carrying boats in the northern prawn fishery. Management measures have been introduced in several fisheries to provide controls such as minimum sizes, closed areas, closed seasons and regulation of the types of fishing gear that may be used.

The Fisheries Development Trust Account (established under the *Fishing Industry Act* 1956) and the Fishing Industry Research Account (established under the *Fishing Industry Research Act* 1969) are available to support financially projects of kinds consistent with the purposes of those Acts for the development and management of the fisheries and fishing industry. The former is supported by the proceeds of the sale of the assets of the Australian Whaling Commission. The latter is a matching fund into which is paid each year an appropriation from Commonwealth Revenue equal to amounts collected from the fishing industry by the State Fisheries Authorities and expended by the States for the same purposes.

Research

The main aim of fisheries research in Australia is to achieve the greatest sustainable yield of fish and to assist in the development of an efficient industry. To this end much of the biological research already undertaken has been directed at formulating recommendations for management of various fisheries. Research work is also carried out which is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, greater economy in operations and the use of more efficient equipment and methods.

Organisations in Australia at present engaged in research into fisheries matters are:

(i) C.S.I.R.O. Division of Fisheries and Oceanography, with its headquarters and main laboratory at Cronulla, N.S.W. (fisheries science and oceanography);

(ii) C.S.I.R.O. Division of Food Preservation located at Ryde, N.S.W. (handling, storage, processing and transportation of fish);

(iii) State fisheries departments (fisheries laboratories have been established in Perth, Hobart, Melbourne and Sydney; new research vessels have been launched by Victoria and New South Wales; the Northern Territory Administration has recently established a Prawn Research Unit in Darwin);

(iv) Fisheries Division, Department of Primary Industry, Canberra (economic and management research, gear technology, extension and education service); and

(v) private fishing companies (surveys of fisheries resources, research into handling and processing.

Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this chapter have been collected by a number of authorities. The various State fisheries authorities have supplied, through the Deputy Commonwealth Statisticians in the States, the details of employment, boats, equipment, and production of the general fisheries. The Fisheries division of the Department of Primary Industry has supplied particulars of the whaling

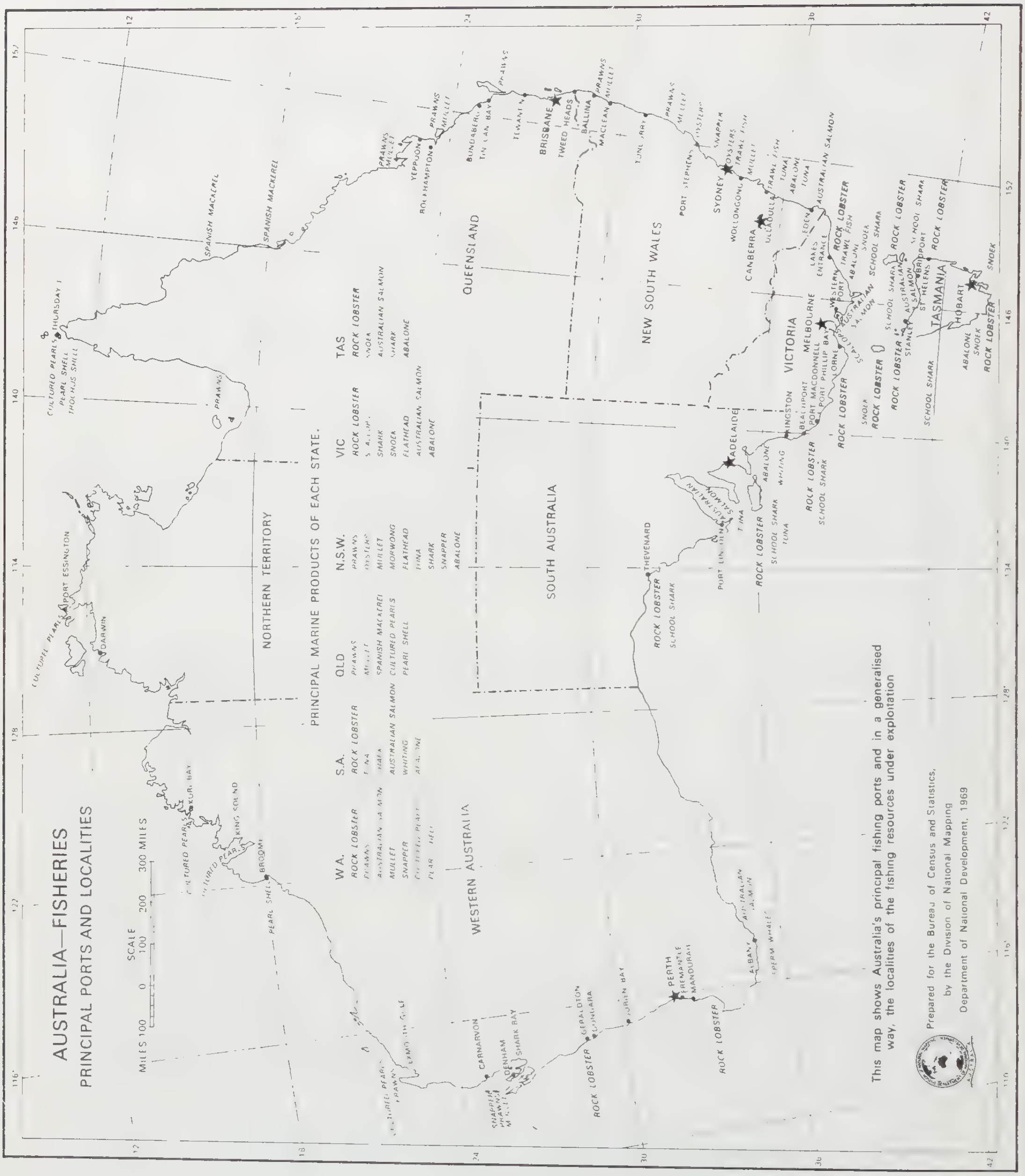

AUSTRALIA—FISHERIES
PRINCIPAL PORTS AND LOCALITIES
SCALE
MILES 100 0 100 200 300 MILES
PRINCIPAL MARINE PRODUCTS OF EACH STATE.
W.A.
ROCK LOBSTER
PRAWNS
AUSTRALIAN SALMON
MULLET
SNAPPER
CULTURED PEARLS
PEARL SHELL
S.A.
ROCK LOBSTER
TUNA
SHARK
AUSTRALIAN SALMON
WHITING
ABALONE
QLD
PRAWNS
MULLET
SPANISH MACKEREL
CULTURED PEARLS
PEARL SHELL
N.S.W.
PRAWNS
OYSTERS
MULLET
MORWONG
FLATHEAD
TUNA
SHARK
SNAPPER
ABALONE
VIC
ROCK LOBSTER
SCALLOPS
SHARK
SNOEK
FLATHEAD
AUSTRALIAN SALMON
ABALONE
TAS
ROCK LOBSTER
SNOEK
AUSTRALIAN SALMON
SHARK
ABALONE
WESTERN AUSTRALIA
NORTHERN TERRITORY
QUEENSLAND
SOUTH AUSTRALIA
NEW SOUTH WALES
VICTORIA
TASMANIA
DARWIN
PORT ESSINGTON
THURSDAY I
BROOME
KING SOUND
KURI BAY
CARNARVON
DENHAM
SHARK BAY
EXMOUTH GULF
GERALDTON
DONGARA
JURIEN BAY
PERTH
FREMANTLE
MANDURAH
ALBANY
SPERM WHALE
THEVENARD
PORT LINCOLN
ADELAIDE
KINGSTON
BEACHPORT
PORT MACDONNELL
PORT PHILLIP BAY
MELBOURNE
LORNE
WESTERN PORT
LAKES ENTRANCE
EDEN
ULLADULLA
WOLLONGONG
SYDNEY
CANBERRA
PORT STEPHENS
TUNCURRY
MACLEAN
BALLINA
TWEED HEADS
BRISBANE
TEWANTIN
TIN CAN BAY
BUNDABERG
ROCKHAMPTON
YEPPOON
STANLEY
BRIDPORT
ST HELENS
HOBART
ROCK LOBSTER
SCHOOL SHARK
TUNA
WHITING
ABALONE
SNOEK
PRAWNS
MULLET
OYSTERS
SNAPPER
TRAWL FISH
AUSTRALIAN SALMON
SPANISH MACKEREL
CULTURED PEARLS
PEARL SHELL
TROCHUS SHELL
This map shows Australia's principal fishing ports and in a generalised way, the localities of the fishing resources under exploitation
Prepared for the Bureau of Census and Statistics, by the Division of National Mapping Department of National Development, 1969
12
18
24
30
36
42
116
122
128
134
140
146
152

PLATE 46

industry and pearl-shell fishery. Statistics of the processing of general fisheries products and of overseas trade in the products of fishing and whaling have been compiled in the Commonwealth Bureau of Census and Statistics.

The statistics refer, in general, to financial years. However, pearl and shell fishing data refer to the season ended in the financial year shown. Whaling statistics are shown by calendar years, and refer to the season in the calendar year. All overseas trade information refers to financial years.

In the preparation of Australian fisheries production statistics the quantities of individual products are generally in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of 'estimated live weights' which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on an 'estimated live weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis. The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

Two weaknesses of fisheries statistical collections in Australia to date have been the lack of uniformity, which makes it difficult to compile statistics on an Australia-wide basis, and the lack of data on the effort involved in taking fish (time spent fishing, gear used, etc.). Recognising these weaknesses, the Commonwealth-States Fisheries Conference in 1960 appointed a Statistics Committee 'to examine all aspects of fisheries statistics and fully document a proposed system for submission to the States and Commonwealth for approval'.

Model system of catch and effort statistics, 1962

The model system of catch and effort statistics designed by the Committee was adopted by the Commonwealth-States Fisheries Conference in 1962. The new system was introduced in Tasmania in 1963, in Victoria and Western Australia in 1964 and in South Australia in 1969. The system was introduced in Queensland for the otter trawl fishery early in 1965, but there are no definite plans at present to extend it to other fisheries.

Under the new system fishermen are asked to report monthly the various fishing methods used, catch of each species taken and the locality where the greatest proportion of the catch is taken. Fishermen record catch in terms of landed weight, and appropriate conversion factors are used to obtain live weight where this is required. A grid system of 1° rectangles (relating to latitude and longitude) is used for recording location of catches at sea, and estuaries and inland waters are recorded where appropriate. Other data obtained include details of fishing effort, ports at which catch is landed, and employment details.

Boats and equipment used in fisheries

Fish, crustaceans and molluscs (edible)

The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol engines of low power. The offshore vessels range up to 120 feet in length and are almost invariably powered by diesel engines. Most of them have either insulated holds and carry ice, or are equipped with dry or brine refrigeration. Some rock lobster vessels are fitted with wells in which the catch is kept alive. About 25 per cent of the vessels registered in Australia for commercial fishing are over 30 feet in length. Recently, a number of well equipped, double rigged, prawn trawlers of 60 feet to 75 feet in length have been built for the rapidly developing northern prawn fisheries.

The following are the types of equipment most commonly used in the main fisheries: *mullet*, beach seine, gill net; *shark (edible)*, long-lines, gill net; *Australian Salmon*, beach seine; *snoek*, trolling lines; *flathead*, Danish seine, otter trawl; *snapper*, long-lines, traps, gill net, hand-line; *morwong*, Danish seine, otter trawl, traps; *whiting*, handlines, Danish seine, beach seine; *garfish*, gill net, beach seine; *mackerel*, trolling lines; *tuna*, pole and live-bait, trolling lines (lampara nets and purse seines are used for taking live bait for tuna); *prawns*, otter trawl, beam trawl, beach seine net; *rock lobster*, pots, traps; *scallops*, dredge, otter trawl.

Pearls, pearl shell and trochus shell

Ketch-rigged luggers about fifty-five feet long which carry crews of eight to fourteen members are used for pearl-shell fishing around Australia.

Whaling

The whaling industry is highly mechanised. Standard equipment includes aircraft to locate whales, diesel-powered catchers of about 100 to 125 feet in length, and tow boats.

Boats and equipment employed by industry

The following two tables show details of boats and equipment employed in the taking of fish, crustaceans and edible molluscs, pearl-shell and trochus-shell, and the number of chasers and stations engaged in whaling operations. The reservations mentioned below regarding the use of employment information are also applicable to these tables. Boats employed in more than one industry are classified to their main activity.

FISHERIES: BOATS AND EQUIPMENT EMPLOYED AND WHALING STATIONS OPERATING, STATES AND NORTHERN TERRITORY, 1968-69

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
General fisheries—									
Boats employed	No.	2,345	871	1,349	2,591	1,412	566	110	9,244
Value of boats and equipment	$'000	8,096	6,410	13,270	10,022	(*a*)14,603	6,094	5,578	64,072
Edible oyster fisheries—									
Boats employed	No.	1,688	..	100	..	..	n.a.	..	1,788
Value of boats and equipment	$'000	1,670	..	74	..	..	n.a.	..	1,744
Pearl-shell and trochus-shell, boats employed(*b*)	No.	..	..	18	..	12	..	3	33
Whaling(*b*)—									
Chasers	No.	..	..	..	..	3	..	..	3
Stations operating	,,	..	..	..	..	1	..	..	1

(*a*) Not comparable with previous years because of changes in methods of valuation. (*b*) *Source:* Department of Primary Industry.

FISHERIES: BOATS AND EQUIPMENT EMPLOYED AND WHALING STATIONS OPERATING, AUSTRALIA, 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
General fisheries—						
Boats employed	No.	9,426	8,983	8,991	9,354	9,244
Value of boats and equipment	$'000	36,401	40,602	46,102	51,456	(*a*)64,072
Edible oyster fisheries—						
Boats employed	No.	1,419	1,415	1,549	1,599	1,788
Value of boats and equipment	$'000	1,125	1,161	1,127	1,444	1,744
Pearl-shell and trochus-shell, boats employed(*b*)	No.	40	42	42	49	33
Whaling(*b*)—						
Chasers	No.	3	3	3	3	3
Stations operating	,,	1	1	1	1	1

(*a*) *See* footnote (*a*) to table above. (*b*) *Source:* Department of Primary Industry.

Employment in fisheries

Persons engaged in fishing activities, 1966 census

The number of persons whose industry statements were classified to 'fishing' at the 1966 census was 8,021 out of a total of 512,994 in all primary industries and 4,856,455 in the total work force. The census classification 'fishing' includes such activities as fishing, whaling, pearl-shell fishing, oyster-farming, etc. For further information *see* the chapter Employment and Unemployment, also 1966 Census Bulletin No. 9.6, *Population: By Industry and Occupational Status, Australia.*

Classification of registered commercial fishermen by industry

The following two tables are derived mainly from the licensing records of the various State fisheries authorities. Because the definitions and licensing procedures used by these authorities are not uniform the statistics should not be used to compare the relative productivities of fishing industries in the several States. Persons engaged in more than one industry are classified according to their main activity, and so may be classified differently from one year to the next.

REGISTERED COMMERCIAL FISHERMEN: STATES AND NORTHERN TERRITORY 1968-69

Industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
General fisheries	3,471	1,571	2,539	4,361	2,785	1,160	573	16,460
Edible oyster fisheries	1,101	..	324	..	n.a.	n.a.	..	1,425
Pearl-shell and trochus-shell(*a*)	..	..	312	..	121	..	40	473
Whaling(*a*)—								
At sea	..	..	..	..	48	..	..	48
Ashore	..	..	..	..	32	..	..	32

(*a*) *Source:* Department of Primary Industry.

REGISTERED COMMERCIAL FISHERMEN: AUSTRALIA, 1964-65 TO 1968-69

Industry	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
General fisheries	11,414	12,256	12,657	14,965	16,460
Edible oyster fisheries	997	1,072	1,249	1,319	1,425
Pearl-shell and trochus-shell(*a*)	533	544	571	538	473
Whaling(*a*)—					
At sea	45	44	45	45	48
Ashore	38	42	43	40	32

(*a*) *Source:* Department of Primary Industry.

Production, processing and domestic marketing of fisheries products

The tables on pages 893–5 show details of the production of the main types of fish, crustaceans, and molluscs caught in each State and the Northern Territory in 1968–69 and throughout Australia for the years 1964–65 to 1968–69.

Fish

FISH: PRODUCTION, BY TYPE, STATES AND NORTHERN TERRITORY, 1968-69
('000 lb estimated live weight)

Type	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Marine types—								
Tuna	(*a*)11,308	326	63	7,204	714	43	..	19,657
Shark	2,068	6,616	37	4,245	763	2,088	1	15,818
Mullet	6,139	541	2,680	506	1,265	48	5	11,184
Australian salmon	807	943	..	1,755	5,576	383	..	9,464
Snoek	138	5,360	..	..	..	3,089	..	8,587
Flathead	3,815	2,024	157	..	17	64	..	6,076
Whiting	325	528	698	1,904	383	..	..	3,838
Snapper	1,261	423	118	793	318	..	1	2,914
Morwong	2,320	291	..	..	..	12	..	2,623
Bream (including Tarwhine)	713	709	378	131	52	..	2	1,986
Garfish	226	510	154	950	37	28	..	1,904
Ruff	..	33	..	416	1,363	..	..	1,812
Mackerel	136	..	1,427	..	165	25	2	1,755
Luderick	1,154	96	161	..	..	..	..	1,410
Tailor	282	62	548	..	80	..	..	973
Leatherjacket	763	38	..	..	12	..	..	814
Other	4,836	4,674	2,212	1,044	1,680	292	572	15,312
Total, marine	*36,291*	*23,174*	*8,633*	*18,948*	*12,425*	*6,072*	*583*	*106,127*
Freshwater types	248	394	n.a.	1,017	..	36	..	(*b*)1,694
Grand total	**36,539**	**23,568**	**8,633**	**19,965**	**12,425**	**6,108**	**583**	**107,821**

(*a*) *Source:* C.S.I.R.O. (*b*) Incomplete, excludes Queensland.

FISH: PRODUCTION, BY TYPE, AUSTRALIA, 1964-65 TO 1968-69
('000 lb estimated live weight)

Type	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Marine types—					
Tuna	15,838	(*a*)18,595	(*a*)12,455	(*a*)14,998	(*a*)19,657
Shark	10,470	11,597	13,322	13,281	15,818
Mullet	12,146	14,152	12,460	11,719	11,184
Australian salmon	8,291	11,184	14,898	15,658	9,464
Snoek	6,514	8,539	5,146	7,307	8,587
Flathead	6,836	5,824	5,848	5,370	6,076
Whiting	3,658	3,600	3,619	3,679	3,838
Snapper	3,877	3,344	3,668	3,548	2,908
Morwong	3,239	3,021	3,772	2,980	2,629
Bream (including Tarwhine)	1,293	1,508	1,692	2,065	1,986
Garfish	1,422	1,471	1,780	1,659	1,904
Ruff	1,507	1,442	1,636	1,313	1,812
Mackerel	2,316	2,298	2,153	2,221	1,755
Luderick	1,356	1,698	1,455	1,486	1,410
Tailor	1,748	1,357	799	1,362	973
Leatherjacket	1,343	1,494	986	854	814
Other	11,381	11,792	11,660	12,023	15,312
Total marine	*93,234*	*102,916*	*97,349*	*101,522*	*106,127*
Freshwater types(*b*)	1,183	1,060	1,184	1,082	1,694
Grand total	**94,417**	**103,976**	**98,533**	**102,603**	**107,821**

(*a*) Includes estimate by C.S.I.R.O. for New South Wales. (*b*) Excludes freshwater fish caught in Queensland, particulars of which are not available.

Crustaceans

CRUSTACEANS: PRODUCTION, BY TYPE, STATES AND NORTHERN TERRITORY, 1968-69
('000 lb gross weight)

Type	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Rock lobster(*a*)	455	1,581	144	4,926	18,030	3,747	. .	28,883
Prawns	3,602	4	10,031	1,579	3,823	. .	2,375	21,414
Crabs	172	. .	617	10	61	. .	1	860
Total	**4,228**	**1,585**	**10,792**	**6,515**	**21,914**	**3,747**	**2,376**	**51,158**

(*a*) Includes freshwater crayfish caught in New South Wales and Victoria and bay lobster taken in Queensland.

CRUSTACEANS: PRODUCTION, BY TYPE, AUSTRALIA, 1964-65 TO 1968-69
('000 lb gross weight)

Type	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Rock lobster(*a*)	26,386	29,908	(*b*)31,625	(*b*)33,107	(*b*)28,883
Prawns	12,076	12,547	13,624	20,100	21,414
Crabs	832	815	966	809	860
Total	**39,293**	**43,270**	**46,215**	**54,017**	**51,158**

(*a*) Includes freshwater crayfish caught in New South Wales and bay lobster taken in Queensland. (*b*) Includes also freshwater crayfish caught in Victoria.

Molluscs (edible)

MOLLUSCS: PRODUCTION, BY TYPE, STATES, 1968-69

('000 lb gross [in-shell] weight)

Type	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Oysters	16,072	8	453	3	(*a*)	39	..	16,574
Abalone	496	5,950	..	3,519	(*a*)	4,648	..	14,614
Scallops	..	10,122	620	..	267	276	..	11,285
Squid	..	233	89	(*b*)39	12	..	..	374
Mussels	..	119	..	..	..	..	..	119
Octopus	..	25	..	(*c*)	1	..	..	26
Cuttlefish	..	7	..	(*c*)	(*a*)	..	..	7
Total	**16,568**	**16,463**	**1,162**	**3,561**	**281**	**4,963**	..	**42,999**

(*a*) Not available for publication; excluded from Australian total. (*b*) Includes cuttlefish and octopus. (*c*) Included with squid.

MOLLUSCS: PRODUCTION, BY TYPE, AUSTRALIA, 1964-65 TO 1968-69

('000 lb gross [in-shell] weight)

Type	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Oysters	14,636	15,067	16,115	(*a*)16,636	(*b*)16,574
Abalone	966	2,975	10,825	18,872	(*b*)14,614
Scallops	(*b*)24,739	(*b*)29,524	(*b*)29,923	28,757	11,285
Squid	217	233	(*c*)369	(*d*)377	(*d*)374
Mussels	334	425	(*b*)260	(*b*)246	119
Octopus	13	34	(*e*)34	(*f*)18	(*f*)26
Cuttlefish	1	3	(*f*)	(*f*)1	(*f*)7
Total(*g*)	**40,907**	**48,262**	**57,527**	**64,908**	**42,999**

(*a*) Excludes particulars for Western Australia and Tasmania which are not available for publication. (*b*) Excludes particulars for Western Australia which are not available for publication. (*c*) Includes octopus for Queensland and cuttlefish and octopus for South Australia. (*d*) Includes cuttlefish and octopus for South Australia. (*e*) Excludes production for Queensland and South Australia, which is included with squid. (*f*) Production for South Australia is included with squid. (*g*) Incomplete, *see* relevant footnotes.

Pearls, pearl-shell and trochus-shell

PEARL CULTURE OPERATIONS: AUSTRALIA, 1964 TO 1968

(*Source:* Department of Primary Industry)

		1964	*1965*	*1966*	*1967*	*1968*
Purchases of shell	No. of shells	590,729	635,003	697,443	783,733	838,622
	tons	288.3	311.6	345.5	427.6	440.1
Production of—						
Cultured pearls—						
Round and baroque pearls	No.	58,839	65,735	105,121	56,653	76,337
	momme(*a*)	35,892	40,098	63,073	30,061	42,854
	$'000	2,102	1,760	2,975	1,539	2,499
Half pearls	No.	232,887	278,637	264,012	266,466	522,247
	$'000	764	883	621	680	1,165
Manufacturing shell	tons	107.9	155.4	160.1	168.2	213.4
	$'000	38	67	70	80	86

(*a*) A momme is a pearl weight measurement equivalent to 0.13 oz (avoirdupois).

PEARL-SHELL AND TROCHUS-SHELL: PRODUCTION STATES AND NORTHERN TERRITORY, 1964 TO 1968

(*Source:* Department of Primary Industry)

(Tons)

	1964	*1965*	*1966*	*1967*	*1968*
Pearl-shell(*a*)—					
Queensland	215.4	193.3	179.6	189.2	137.9
Western Australia	79.9	97.4	103.2	132.7	117.0
Northern Territory	5.4	8.9	16.6	4.8	..
Australia	*300.7*	*299.6*	*299.4*	*326.7*	*254.9*
Trochus-shell—					
Queensland	30.6	10.8	2.6	1.0	5.8

(*a*) Excludes manufacturing shell produced from pearl culture operations.

WHALES TAKEN(*a*): AUSTRALIA, 1965 TO 1969

(*Source:* Department of Primary Industry)

(Number)

	1965	*1966*	*1967*	*1968*	*1969*
Male	636	595	560	585	637
Female	32	11	27	73	42
Total	**668**	**606**	**587**	**658**	**679**

(*a*) Sperm whales only were taken.

Processing of fish, crustaceans and molluscs

Ice is extensively used for the chilling of fish taken in estuarine and inshore fisheries. Refrigeration is used particularly on vessels operating in the tuna fishery and prawn fisheries to chill or freeze the catch. Refrigerated brine tanks are most commonly used.

Processing plants are located strategically throughout Australia close to fishing grounds. In recent years a number of shore-based plants have been established in remote areas of northern Australia to service the expansion of the prawn fishery. Processing vessels receiving prawns from a fleet of trawlers are also operating in this fishery.

Rock lobsters, prawns and scallops are frozen for export; tuna, snoek, Australian salmon and abalone are canned; small amounts of fish are smoked; some molluscs are bottled. Hand labour is still used extensively in processing operations, but mechanisation is being progressively introduced.

Edible fish for local consumption is mainly dispatched fresh iced to markets.

FISH PROCESSING (EXCEPT FREEZING): AUSTRALIA 1964-65 TO 1968-69

('000 lb)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Fish used(*a*)—					
Whole	16,464	17,030	18,782	24,146	25,292
Headed and or gutted	5,491	5,866	6,872	7,824	5,050
Estimated live weight equivalent, fish used	*22,900*	*23,900*	*26,700*	*33,200*	*31,200*
Production(*b*)—					
Canned fish(c)—					
Australian salmon	3,875	4,664	6,344	6,736	4,368
Tuna	5,482	4,839	5,639	8,193	9,033
Other	1,557	2,350	1,818	2,469	1,603
Total, canned fish	*10,914*	*11,853*	*13,801*	*17,398*	*15,004*
Smoked fish	222	258	241	259	175
Fish paste	944	1,018	1,146	1,310	1,194
Fish meal(*d*)	2,373	1,778	1,805	1,714	2,179

(*a*) Fish used for canning (including fish loaf), smoking and the manufacture of fish paste, but excluding the weight of oysters, other shellfish and crustaceans used for canning. (*b*) Excludes canned rock lobsters, prawns, oysters, and clams, details of which are not available for publication. (*c*) Includes fish loaf, fish cakes, etc. (*d*) Excludes whale meat.

Whale processing

Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

WHALE PROCESSING: AUSTRALIA, 1965 TO 1969

(*Source:* Department of Primary Industry)

		1965	*1966*	*1967*	*1968*	*1969*
Quantity of sperm whale oil produced	barrels(*a*)	25,002	24,252	22,428	23,472	26,922
Value of whale oil produced	$'000	510	540	423	435	608
Value of by-products (meal, meat, solubles, etc.)	,,	244	398	282	313	345
Total value of products	,,	*754*	*938*	*705*	*748*	*953*

(*a*) 6 barrels = 1 ton.

Domestic marketing of fisheries products

Although virtually the whole of the tuna and Australian salmon catches and a large proportion of the snoek catch are canned, the greater part of Australian fish production is marketed fresh or frozen.

Marketing arrangements for fresh fish vary. In New South Wales fish marketing is the responsibility of the New South Wales Fish Authority, which operates the Metropolitan and Wollongong Fish Markets. In other coastal centres of New South Wales fishermen's co-operatives may become registered as local fish markets. In Queensland the Fish Board and North Queensland Fish Board sells all production on behalf of fishermen in that State, exept for fish intended for export and interstate trade. In Victoria, Western Australia, South Australia and Tasmania there is no restriction on market outlets. In South Australia the great majority of fishermen are members of the South Australian Fishermen's Co-operative Ltd, which handles the whole of their production. Other outlets for fish products include retail and catering establishments.

Value of fisheries production

The following tables show details of the values of production of edible fisheries products, pearl-shell and trochus-shell for the years 1964–65 to 1968–69. *See also* the chapter Miscellaneous for an explanation of the value terms used.

SELECTED FISHERIES PRODUCTS: GROSS VALUE, STATES AND NORTHERN TERRITORY 1968-69

($'000)

Product	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Fish	5,142	2,678	(*a*)1,881	3,013	922	627	96	14,359
Crustaceans . .	2,746	1,458	4,197	4,240	19,613	3,474	832	36,560
Molluscs (edible) . .	3,572	1,715	167	431	(*b*)26	714	. .	6,624
Pearl-shell(*c*) . .	. .	. .	(*d*)61	. .	(*d*)90	. .	. .	(*e*)237

(*a*) Excludes freshwater fish, particulars of which are not available. (*b*) Excludes abalone, green turtle and oysters, particulars of which are not available for publication. (*c*) *Source:* Department of Primary Industry. (*d*) Estimated. (*e*) Includes manufacturing shell produced from pearl culture operations; details classified by States are not available for publication.

SELECTED FISHERIES PRODUCTS: GROSS VALUE, AUSTRALIA, 1964-65 TO 1968-69

($'000)

Product	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Fish(*a*)	12,187	13,730	12,646	14,179	14,359
Crustaceans	22,386	24,008	24,906	32,755	36,560
Molluscs (edible)	(*b*)3,804	(*b*)4,159	(*b*)6,580	(*b*)8,036	(*c*)6,624
Pearl-shell(*d*)	271	291	307	271	237
Trochus-shell(*d*)	5	2	. .	. .	1

(*a*) Excludes freshwater fish caught in Queensland. (*b*) Excludes scallops in Western Australia. (*c*) Excludes abalone, green turtle and oysters in Western Australia. (*d*) *Source:* Department of Primary Industry.

GROSS VALUE OF FISH, BY PRINCIPAL TYPES, 1968-69(*a*)

($'000)

Type of Fish	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Tuna	1,018	49	3	612	36	4	. .	1,722
Shark	166	1,187	2	508	92	332	. .	2,287
Mullet	844	45	241	30	132	4	1	1,297
Australian salmon .	142	81	. .	158	205	29	. .	615
Snoek	51	298	. .	. .	. .	159	. .	509
Flathead	724	200	28	. .	2	7	. .	961
Snapper	360	123	32	166	54	. .	. .	734
Morwong	376	41	. .	. .	. .	2	. .	418
All other species . .	1,461	656	(*b*)1,574	1,538	401	90	94	5,816
Total fish . .	**5,142**	**2,678**	**1,881**	**3,013**	**922**	**627**	**96**	**14,359**

(*a*) A breakdown of value according to species is not available for previous years. (*b*) Excludes freshwater fish, particulars of which are not available.

In the following table the gross value and local value of fishing and whaling production are shown by States. Because the value of materials used in the course of production is not available for all States it is not possible to show a comparison of net values.

FISHERIES: GROSS AND LOCAL VALUE OF PRODUCTION STATES AND NORTHERN TERRITORY, 1964-65 TO 1968-69

($'000)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
GROSS VALUE								
1964–65	9,830	3,731	5,737	5,120	15,218	2,686	71	42,393
1965–66	10,163	4,403	6,086	6,048	15,733	3,300	61	45,794
1966–67	10,473	4,980	6,959	6,175	16,525	3,653	82	48,847
1967–68	12,028	5,725	7,309	6,993	21,954	4,473	107	58,589
1968–69	11,461	5,851	8,089	7,683	23,717	4,864	1,191	62,856
LOCAL VALUE								
1964–65	8,263	3,212	5,298	4,480	15,167	2,194	71	38,685
1965–66	8,555	3,797	5,588	5,294	15,683	2,747	61	41,725
1966–67	8,836	4,307	6,436	5,420	16,469	3,024	82	44,574
1967–68	10,212	5,153	6,896	6,162	21,805	3,668	107	54,003
1968–69	9,807	5,265	7,679	6,773	23,600	4,100	1,191	58,415

Consumption of edible fisheries products

Particulars of the estimated supplies of fish, crustaceans and molluscs available for consumption per head of population, in terms of edible weight, are included in the table below. For the purpose of compiling this table, an allowance has been made for the non-commercial fish catch.

FISHERIES PRODUCTS: ESTIMATED SUPPLIES AVAILABLE FOR CONSUMPTION AUSTRALIA, 1964-65 TO 1968-69

(lb edible weight per head per annum)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Fresh or frozen—					
Fish—					
Australian origin(*a*)	3.2	3.3	3.1	3.0	3.3
Imported	3.0	3.8	3.3	3.5	3.8
Crustaceans and molluscs	1.5	1.5	1.8	2.1	1.7
Cured (including smoked and salted)	0.7	0.9	0.6	0.7	0.8
Canned—					
Australian origin	1.0	1.1	0.9	0.7	0.9
Imported	2.3	2.4	2.4	2.2	2.1
Total	**11.7**	**13.0**	**12.1**	**12.2**	**12.6**

(*a*) Includes an allowance for non-commercial catch of fish; excludes fish exported.

Overseas trade in fisheries products

Edible fisheries products

OVERSEAS TRADE IN EDIBLE FISHERIES PRODUCTS: AUSTRALIA
1966-67 TO 1968-69

	Quantity ('000 lb)			*Value ($'000 f.o.b.)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
IMPORTS						
Fresh and frozen(*a*)	45,597	46,886	52,528	12,456	10,741	13,641
Smoked, dried and salted	7,393	8,975	10,329	1,568	2,018	2,395
Potted and concentrated	323	153	143	198	160	137
Canned—						
Herrings	5,844	4,676	4,429	1,281	1,095	1,136
Salmon	12,785	11,226	10,601	7,705	6,681	6,485
Sardines and pilchards	5,318	6,260	6,101	1,919	2,306	2,411
Tuna	148	258	278	51	93	100
Other fish	2,870	2,241	2,275	747	749	785
Crustaceans and molluscs	1,432	2,085	1,841	1,071	1,764	1,474
Total, canned	*28,397*	*26,746*	*25,525*	*12,774*	*12,688*	*12,391*
Products not elsewhere included	2,542	2,634	2,886	1,693	1,725	1,930
Grand total	..	..	..	**28,689**	**27,332**	**30,494**
EXPORTS (Australian produce only; excludes re-exports)						
Fresh and frozen(*b*)—						
Fish	988	296	233	211	116	88
Crustaceans and molluscs—						
Rock lobster tails	10,266	11,016	9,074	17,172	22,540	22,754
Prawns	2,078	3,290	6,383	2,192	3,476	7,405
Other	3,456	5,648	4,130	1,999	3,740	2,916
Boiled and frozen crustaceans and molluscs	1,727	1,136	904	1,536	1,111	1,139
Prepared and preserved—						
Fish	545	384	348	205	146	152
Crustaceans and molluscs	2,435	4,259	4,101	1,392	2,376	2,170
Products not elsewhere included	155	163	125	141	245	275
Grand total	..	..	..	**24,848**	**33,750**	**36,899**

(*a*) Excludes frozen smoked, which is included in item Smoked, dried, etc. (*b*) Excludes frozen smoked, which is included in item Products not elsewhere included.

Pearls

Pearls valued at $720,000 were imported into Australia in 1968–69 ($325,000 from Papua and New Guinea, $314,000 from Japan) compared with imports valued at $451,000 in 1967–68 ($405,000 from Japan, $19,000 from Papua New Guinea).

Cultured pearls exported from Australia in 1968–69 (excluding re-exports) were valued at $1,981,000 compared with exports valued at $1,532,000 in 1967–68, the bulk of the exports each year being shipped to Japan. The value of natural pearls exported from Australia in 1968–69 (excluding re-exports) was $17,000 compared with $12,000 in 1967–68, the major proportion being shipped to the United Kingdom.

Pearl, etc., shell

Of the pearl-shell exported in 1968–69, exports valued at $122,000 were consigned to the United States of America, $98,000 to Papua and New Guinea, $88,000 to the Federal Republic of Germany and $73,000 to Japan.

OVERSEAS TRADE IN SHELLS: AUSTRALIA, 1966-67 TO 1968-69

	Quantity ('000 lb)			*Value ($'000 f.o.b.)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Imports	68	92	141	32	38	38
Exports(*a*)—						
Pearl-shell	1,326	1,204	1,240	540	381	456
Other shell (including trochus)	84	79	119	32	15	11
Total exports	*1,411*	*1,283*	*1,359*	*572*	*396*	*467*

(*a*) Australian produce only; excludes re-exports.

Marine animal oils

Of the whale oil exported in 1968–69, about 60 per cent was exported to the United Kingdom, the remainder going to the United States of America.

OVERSEAS TRADE IN MARINE ANIMAL OILS: AUSTRALIA, 1966-67 TO 1968-69

	Quantity ('000 gal)			*Value ($'000 f.o.b.)*		
	1966–67	*1967–68*	*1968–69*	*1966–67*	*1967–68*	*1968–69*
Imports—						
Whale oil from—						
Norway	. .	607	2	. .	433	1
Japan	727	261	703	714	170	390
United Kingdom	104	61	34	135	73	34
Other countries	18	30	19	17	27	14
Total whale oil	849	959	758	866	702	440
Cod liver oil	93	94	83	84	81	74
Unrefined fish oils	61	73	110	54	54	63
Other	7	17	16	22	20	14
Total imports	*1,010*	*1,143*	*967*	*1,026*	*857*	*591*
Exports(*a*)—						
Whale oil	932	1,532	1,315	466	640	502
Other	2	1	. .	3	1	1
Total exports	*934*	*1,533*	*1,315*	*469*	*641*	*503*

(*a*) Australian produce only; excludes re-exports.

CHAPTER 27

MINERAL INDUSTRY

Further detailed statistics and information on the subjects dealt with in this chapter are contained in the annual printed bulletins *Non-Rural Primary Industries* issued by this Bureau and in *The Australian Mineral Industry—Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in conjunction with this Bureau, a quarterly publication, *The Australian Mineral Industry*, comprising two parts—Part 1—Quarterly Review and Part 2—Quarterly Statistics. The annual mimeographed statistical bulletins *Mining and Quarrying*, *Minerals and Mineral Products*, *Mineral Exploration*, and *Overseas Participation in Australian Mining Industry* of this Bureau contain economic statistics of the industry prepared and published as soon as possible after the data have been compiled. A monthly statistical bulletin *Minerals and Mineral Products* is issued also, and other current statistics on mining or mine products are contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*.

GENERAL

Geology

General geology

Most of the western and central part of the Australian continent consist of basement rocks of Precambrian age. Younger Palaeozoic rocks, mostly of geosynclinal origin, form a belt several hundred miles wide extending from north Queensland to Tasmania. Mesozoic platform sediments form a broad zone separating the Palaeozoic and Precambrian rocks and extending from the Gulf of Carpentaria to central New South Wales. Cainozoic rocks occur mainly in Victoria, south-western New South Wales and southern South Australia, and as residual basalt cappings over extensive areas of the Palaeozoic rocks of eastern Australia.

Economic geology

Minerals of economic significance occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralisation is perhaps more varied, but the Palaeozoic deposits now being worked are in general smaller than those found in Precambrian rocks. Most of Australia's metallic mineral deposits occur within two broad regions, a region of Precambrian rocks in the west and central areas of the continent and a region of younger Palaeozoic rocks in the east.

The major deposits of metallic minerals, including iron ore, lead, zinc, silver, copper, uranium, nickel, and gold, are contained in the Precambrian rocks of the Australian shield. Smaller deposits of tin, tungsten, tantalum, mica, beryllium, manganese, and cobalt are also contained in these rocks.

The mineralised Palaeozoic rocks contain major deposits of gold, now mostly worked out, and a few large copper and lead-zinc-silver occurrences. Smaller amounts of tin, tungsten, molybdenum, bismuth, antimony, and other metals also occur in these rocks.

Outside these two main categories, however, there are some metallic mineral deposits of considerable economic importance which were formed during the Tertiary Period. These include bauxite which occurs as a surface capping over rocks of various ages. Extensive deposits of bauxite occur at Weipa on Cape York peninsula in north Queensland, at Gove on the north-eastern tip of the Northern Territory, in the Darling Range in Western Australia, and near Kalumburu in the north-west of Western Australia. These deposits are the result of a long period of weathering.

Mineral sands, another important exception, contain rutile, zircon, ilmenite, monazite, and other minerals, and are particularly well developed on the central and northern New South Wales coast, southern Queensland and south-western Western Australia. The deposits of the eastern States are considered to be derivatives of Mesozoic rocks. The Western Australian deposits are thought to be derivatives of the Precambrian granites of the Australian shield.

Occurrences of fuel minerals (coal, oil and natural gas) are characteristically located in former sedimentary basins. Large areas of Australia are covered by these basins, and more than twenty major sedimentary basins have been identified on the Australian mainland. In addition, sedimentary basins are known to exist in off-shore areas adjacent to the Australian coast. The individual basins range in area from 4,000 to 680,000 square miles and contain marine and continental sedimentary rocks ranging in maximum thickness from 1,000 to about 30,000 feet and including rocks of all ages from Proterozoic to Tertiary.

The main Australian deposits of black coal are in eastern Queensland and New South Wales. Most are Permian in age, and they predominantly have a bituminous rank; both coking and non-coking types occur. The extensive brown coal deposits of Victoria were formed during the Tertiary Period.

Crude oil and natural gas have been found in a number of sedimentary basins. In the Bowen-Surat Basin, Queensland, commercial deposits of oil exist at the Moonie and Alton fields, and commercial deposits of natural gas exist in numerous prospects in the Roma and Rolleston areas. Gas reserves are present in the Adavale Basin at Gilmore, and in the Cooper Basin at Roseneath. In general the oil reservoir rocks in Queensland are of Lower Jurassic age, and the gas reservoir rocks are of Mesozoic and Permian age. In the Gippsland Basin, off-shore Victoria in the Bass Strait, oil in considerable quantities was discovered in the Kingfish and Halibut fields, and oil and natural gas in the Marlin and Barracouta fields. In the same basin, significant deposits of hydrocarbons, were encountered in the Flounder, Tuna, Snapper, Bream, and Emperor prospects. In the Gippsland Basin, the Cretaceous and Tertiary strata are the reservoir rocks. In the Cooper Basin, South Australia, commercial deposits of natural gas were discovered at Gidgealpa and Moomba, and also at Daralingie, Toolachee and Tirrawarra. The reservoir rocks are of Permian age. In the Carnarvon Basin, Western Australia, commercial crude oil mainly in the Cretaceous formations, and also to a lesser degree in the Jurassic, was discovered at Barrow Island. Off-shore, significant hydrocarbon shows have been discovered in Lower Cretaceous rocks at Legendre. Further south, in the Perth Basin, natural gas in commercially significant quantities was discovered in the Yardarino, Gingin, Dongara, Mondarra and Whicher Range prospects, the reservoir rock being of Lower Permian age. In the off-shore Bonaparte Gulf Basin high pressure natural gas was encountered at the Petrel prospect. In the Amadeus Basin, Northern Territory, natural gas was discovered in commercial quantities in formations of Ordovician age at Mereenie and Palm Valley.

Of the non-metallic minerals, many occur in, or were formed from, rocks of various ages. The most important are asbestos, clays, sand and gravel, limestone, gypsum, and silica. Salt won by evaporation of sea water is another important product.

Opals are found in the flat-lying sedimentary beds of the Great Artesian Basin in Queensland, New South Wales and South Australia. These opal deposits were formed during the Tertiary Period.

A table showing most of the larger mineral deposits now being mined in Australia according to the age of the geological formation in which they are found is shown in Year Book No. 53, page 1062.

Mineral resources

Australia is self-sufficient in most minerals of economic importance and much more than self-sufficient in some. The following table summarises, in a general way, known reserves and production of the principal metals and minerals in relation to Australian consumption of these commodities and present export availability. Many qualifications are necessary to a simple summary of this kind, and the table should be read in conjunction with the following detailed notes on principal minerals.

RESERVES OF MINERALS: AUSTRALIA

(*Source:* Bureau of Mineral Resources, Geology and Geophysics)

Production	*Reserves adequate*	*Reserves uncertain*	*Reserves negligible*
Production sufficient for domestic demand and exports	Barite Bauxite Cadmium Coal (black) Copper Gold Gypsum Iron ore Lead	Beryl Talc Tantalite	

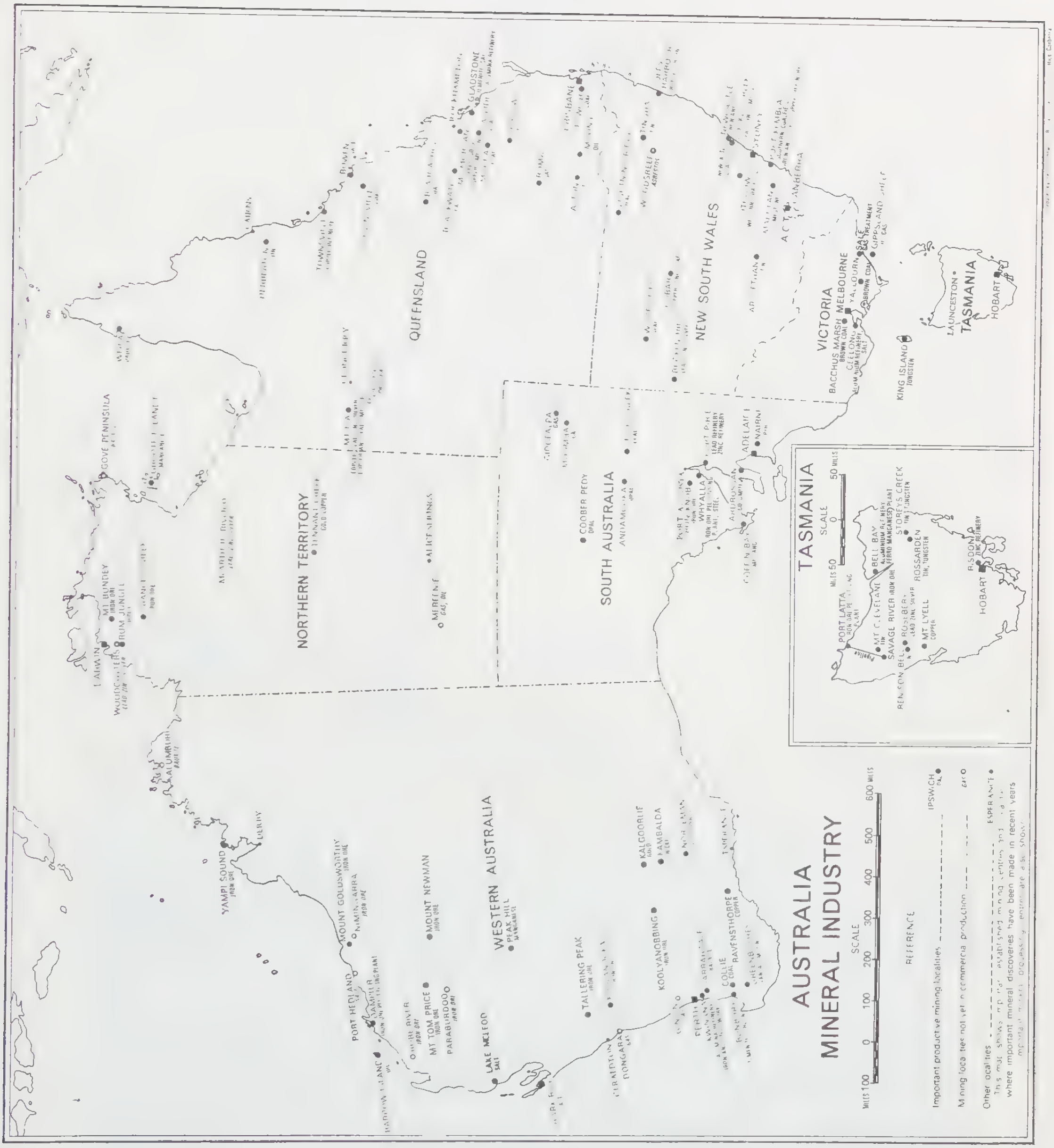

AUSTRALIA
MINERAL INDUSTRY
SCALE
MILES 100 0 100 200 300 400 500 600 MILES
REFERENCE
Important productive mining localities
Mining localities not yet in commercial production
Other localities
WESTERN AUSTRALIA
NORTHERN TERRITORY
SOUTH AUSTRALIA
QUEENSLAND
NEW SOUTH WALES
VICTORIA
TASMANIA
A.C.T.
DARWIN
GOVE PENINSULA
MT BUNDEY
RUM JUNGLE
TENNANT CREEK
ALICE SPRINGS
MEREENIE
MOUNT ISA
COOBER PEDY
ADELAIDE
WHYALLA
PORT PIRIE
BRISBANE
GLADSTONE
BOWEN
TOWNSVILLE
WEIPA
SYDNEY
NEWCASTLE
PORT KEMBLA
CANBERRA
MELBOURNE
BACCHUS MARSH
GEELONG
YALLOURN
SALE
GIPPSLAND
KING ISLAND
LAUNCESTON
HOBART
YAMPI SOUND
DERBY
PORT HEDLAND
DAMPIER
MOUNT GOLDSWORTHY
MOUNT NEWMAN
MT TOM PRICE
PARABURDOO
PEAK HILL
LAKE McLEOD
TALLERING PEAK
KOOLYANOBBING
KALGOORLIE
KAMBALDA
COLLIE
RAVENSTHORPE
DONGARA
PERTH
ESPERANCE
IPSWICH
TASMANIA
SCALE
MILES 50 0 50 MILES
PORT LATTA
MT CLEVELAND
SAVAGE RIVER
BELL BAY
STOREYS CREEK
ROSSARDEN
RENISON BELL
ROSEBERY
MT LYELL
RISDON
HOBART

PLATE 47

RESERVES OF MINERALS: AUSTRALIA—*continued*

Production	*Reserves adequate*	*Reserves uncertain*	*Reserves negligible*
Production sufficient for domestic demand and exports	Bismuth Manganese ore (metallurgical) Mineral sands(*a*) Nickel Opal Salt Silver Tin Tungsten Zinc	Glass sands	
Production sufficient for domestic demand	Clays (except light grade china clay) Coal (brown) Dolomite Felspar Limestone	Sillimanite	
Production not sufficient for domestic demand	Asbestos (chrysotile) Lithium minerals Phosphate rock Sulphides (as source of sulphur)	Abrasives Antimony Bentonite China clay Chromite Cobalt Diatomite Fluorite Magnesite Manganese ore (chemical) Mercury Mineral pigments Petroleum Platinum	Molybdenum
Production nil	Magnesium Potassium salts Vanadium	Arsenic Asbestos (crocidolite) Diamonds Graphite Vermiculite	Borates Nitrates Sulphur

(*a*) Ilmenite, monazite, rutile, zircon.

Individual minerals

Aluminium. As a result of recent discoveries at Weipa, Gove, in the Darling Range, and in the Kimberley area, Australia's reserves of bauxite are known to be very large, perhaps the largest in the world. Total reserves at Weipa are believed to be in excess of 3,000 million tons, while the deposits at Gove are reported to contain up to 250 million tons of bauxite. In the Darling Range, reserves of economic grade bauxite are estimated to exceed 500 million tons spread over several locations. Another significant deposit of over 200 million tons has so far been proved in the Mitchell Plateau area in the Kimberley district of Western Australia.

Coal. Australia has coal resources adequate to provide for future domestic requirements and a substantial export surplus. These resources include coal of all types, except pure anthracite. Australia's coal reserves are concentrated mainly in the mainland eastern States. The bituminous coal is located mainly in New South Wales and Queensland; Victoria has very substantial brown coal reserves in the Latrobe Valley. A table showing Australian coal reserves is published in Year Book No. 53, page 1065.

Copper. The principal deposit of this metal is at Mount Isa, where ore reserves were estimated at 75 million tons in 1969. Other important deposits are situated at Cobar, New South Wales, Mount Morgan, Queensland, Mount Lyell, Tasmania and Tennant Creek, Northern Territory. A small deposit at Ravensthorpe, Western Australia has also been developed.

Crude oil. Recent exploration and development activity indicates that Australia has substantial reserves of crude oil and that additional reserves will be discovered in the near future as exploration activity finds further drilling prospects, particularly in the off-shore areas. The Moonie and Alton fields in Queensland, and the Barrow Island field in Western Australia have been producing since 1964, 1966 and 1967 respectively. The Barracouta, Marlin and Halibut fields in the off-shore Gippsland Shelf area in Victoria commenced production in 1969. Production from the nearby Kingfish field is expected to start in mid to late 1970. At the end of 1969, recoverable reserves in Australia were estimated to be 1,860 million barrels and the recent discoveries indicate the possibility of an upward revision of this figure in the near future.

Gold. Australia's gold resources are heavily concentrated in Western Australia, mainly in the Kalgoorlie–Coolgardie area, but small deposits of gold-bearing ore occur in all States. In addition, gold is commonly obtained as a by-product of other mining activities, particularly copper mining. Economic gold ore reserves at Kalgoorlie were estimated at more than 10.8 million tons in 1969, with a gold content of 5.20 dwt per ton.

Iron ore. In recent years very extensive deposits of iron ore have been discovered in Australia. These discoveries have established Australia as one of the most important iron ore provinces in the world. The largest deposits are located in the Hamersley and Ophthalmia Ranges of north-west Western Australia. Other commercially important deposits of iron ore are situated in the Savage River area of Tasmania, in the Middleback Ranges of South Australia, in the Mount Goldsworthy area, and at Yampi Sound, Koolyanobbing, and Koolanooka in Western Australia, and at Mount Bundey and Frances Creek in the Northern Territory. These deposits are adequate to supply the estimated needs of the Australian iron and steel industry far into the future, as well as providing a large export availability. Total Australian reserves with an iron content greater than 50 per cent are estimated to be more than 20,000 million tons.

Lead-zinc. Australia has been a major producer of lead and zinc since the discovery of ore at Broken Hill, New South Wales in 1883. Reserves of lead-zinc ore at Broken Hill are currently 17.3 million tons assaying 12 per cent lead and 11 per cent zinc. Reserves at another major producing mine, Mount Isa in Queensland, are 34.6 million tons assaying 7 per cent lead, 6 per cent zinc. Preparations are now being made to start production from a new mine near Mount Isa with reserves of 35.0 million tons of ore, assaying 8 per cent lead and 10 per cent zinc. The capacity of the mine at Rosebery in Tasmania (reserves of 9.3 million tons, 6 per cent lead and 18 per cent zinc) is being increased. Definite proposals for the development of McArthur River in Northern Territory (reserves of 200.0 million tons, 4 per cent lead and 9 per cent zinc) have not yet been announced. Reserves also exist at Cobar, New South Wales, Beltana, South Australia, and Brown's Prospect and Woodcutters, Northern Territory.

Manganese. Australia's known reserves of manganese, which is highly important for the iron and steel industry, are in excess of domestic requirements, and exports have increased sharply in recent years. The principal deposits currently being worked are in the Pilbara area of Western Australia and on Groote Eylandt in the Gulf of Carpentaria. Reserves on Groote Eylandt are substantial.

Mineral sands. Ores of titanium (rutile and ilmenite), zirconium (zircon) and thorium (monazite) occur in beach sands over extensive areas of the north and central coasts of New South Wales, the south and central coasts of Queensland, and the south-western corner of Western Australia. Resources are large and easily workable. Australia's reserves of rutile and zircon represent a large proportion of the world's reserves of these minerals. Australia is responsible for about 90 per cent of the world's supplies of rutile, 85 per cent of zircon, 30 per cent of monazite and 25 per cent of ilmenite.

Natural gas. Significant discoveries of natural gas have been made throughout Australia, the most notable being the Barracouta and Marlin fields with combined reserves of 5.3 U.S. trillion cubic feet, the Gidgealpa and Moomba fields with reserves of 1.23 U.S. trillion cubic feet in South Australia and numerous small fields in the Roma and Rolleston areas in Queensland with combined reserves of 200 U.S. billion cubic feet. Commercial production is being undertaken from the Barracouta, Marlin, Gidgealpa, Moomba and Roma fields. Total daily gas production at the end of 1969 was of the order of 57 million cubic feet. To these commercial fields must be added the significant discoveries at Yardarino, Gingin, Dongara and Mondarra in Western Australia where reserves are estimated at 500 U.S. billion cubic feet and the reserves of 1.1 U.S. trillion cubic feet at Mereenie and Palm Valley in the Northern Territory. The total reserves of natural gas in Australia, excluding Papua and New Guinea, are estimated at 13.2 U.S. trillion cubic feet.

Natural gas liquids. The production of natural gas liquids in association with natural gas is becoming an important facet of Australian petroleum production. Natural gas liquids, also known as condensate, are produced in association with gas from the Barracouta, Marlin, Gidgealpa and Moomba fields and to a lesser degree at Roma. Natural gas liquids from Barracouta and Marlin are separated from the gas at the Dutson gas and crude stabilisation plant and piped to Westernport Bay for shipment to local and export markets. As yet, the liquids extracted from the Gidgealpa and Moomba gas are not used commercially but are returned to the reservoir for future reclamation. The liquids produced at Roma, because of their small quantity, are mainly used as fuel on the producing fields.

Reserves of natural gas liquids in Australia, excluding Papua and New Guinea, are estimated to be 208 million barrels.

Nickel. In the Kalgoorlie region of Western Australia a number of nickel sulphide ore bodies have been discovered since 1966. Reserves contained in more than 14 separate ore bodies total more than 27 million tons averaging 3 per cent nickel. Large lateritic nickel deposits have been discovered at Wingellina in Central Australia and at Greenvale and Marlborough in Queensland; plans to develop the Greenvale deposit were announced in early 1970.

Phosphate. Accelerated search for phosphate rock commencing in late 1964 resulted in the discovery of major deposits in north-west Queensland in 1966. Detailed assessment and feasibility studies have yet to be completed.

Tin. The main deposits of tin now being exploited are in the Herberton field inland from Cairns, Queensland, north-west and north-east Tasmania, in the Pilbara region and in the south-west of Western Australia, and in the New England area, at Mt Tallebung, and Ardlethan in New South Wales. As the result of exploration and expansion of known deposits in recent years, Australia is now a net exporter of this metal.

Tungsten. The main deposits of tungsten ores are in northern Tasmania (wolfram) and on King Island (scheelite). Australia's own requirements are small, and production is principally for export.

Uranium. Australia's known reserves of uranium ore were mined during the years 1953 to 1963. During this period substantial quantities of uranium concentrate were exported to the United Kingdom and the United States. In 1967, the Minister for National Development announced a partial embargo on exports of uranium from Australia, which was designed to conserve known resources while encouraging exploration for new deposits. The policy represents a liberalisation of former policies in that prospecting companies are given an assurance in advance that approval would be given to export specified quantities of uranium from existing or newly discovered deposits, depending on their size and date of discovery. Stated reserves amounted to 11,620 short tons of uranium oxide reasonably assured and a further 3,230 short tons possible but not proven; of these reserves, 10,660 short tons were said to be economically recoverable within the price range $5 to $10 per pound and 4,190 short tons economically recoverable within the price range $10 to $30 per pound. A marked increase in exploration activity following the relaxation of export restrictions has resulted in several important discoveries. At Mary Kathleen in north-west Queensland, an extensive programme of diamond drilling is reported to have significantly extended previously known reserves, while at Westmoreland also in north-west Queensland a preliminary assessment of recently discovered deposits suggests that total reserves could exceed those at Mary Kathleen. Other important areas of exploration are Mount Painter in South Australia, Rum Jungle and South Alligator River in Northern Territory and the Kimberley region of Western Australia.

Administration

For all practical purposes all mineral rights in Australia are vested in the Crown. In the States, sovereign rights are held by the State Governments with respect to mineral resources within their boundaries. In the Territories of the Commonwealth these rights are vested in the Commonwealth Government. The Commonwealth Government is able also to influence over-all development and production activity in the mineral industry by virtue of its statutory powers with respect to international trade, customs and excise, taxation, and loan raisings. Certain specially formed bodies such as the Joint Coal Board and the Australian Atomic Energy Commission have been given administrative responsibility in defined areas.

Control of mining

Each State or Territory in the Commonwealth has its own mining Acts or Ordinances and regulations governing the prospecting for and working of mineral deposits. These Acts, etc. are similar in principle, but differ in detail. They all make provision for miner's rights to prospect and small mining leases for mineral production. The principles embodied in these Acts, etc. were established many years ago when mining operations were generally small scale and labour intensive. Although amendments have been enacted to modernise the legislation, it is generally inadequate for the large scale capital-intensive operations often involved with modern mineral development. For this reason a large enterprise may take the course of acquiring mining titles by negotiation with the appropriate Minister for Mines and having the agreed terms and conditions embodied in an Act of the State Parliament. This method of acquisition has been used in several cases where the leasing company undertook an obligation (such as the erection of a large treatment works) in return for leases over large areas for a long period, and has become more common in recent years (e.g. iron ore in Western Australia, coal and bauxite in Queensland, bauxite in the Northern Territory).

The following table sets out particulars of the areas occupied under mining Acts and Ordinances in the several States and Territories at 31 December 1965 to 1969. These figures exclude data relating to exploration licences, etc., covering the large areas referred to in the next section below. Also excluded are areas occupied under petroleum exploration and development titles, particulars of which are shown in the table on page 910.

AREAS OCCUPIED UNDER MINING ACTS AND ORDINANCES(*a*) STATES AND NORTHERN TERRITORY, 31 DECEMBER 1965 TO 1969

('000 acres)

Year	*N.S.W.(b)*	*Vic.*	*Qld(c)*	*S.A.(b)(c)*	*W.A.(d)*	*Tas.*	*N.T.(b)*	*Total*
1965	1,015	60	2,494	93	263	45	61	4,031
1966	1,083	84	2,591	98	343	54	36	4,289
1967	1,177	74	2,304	97	372	60	37	4,121
1968	1,146	615	2,618	97	705	66	43	5,290
1969	1,397	626	2,607	97	1,566	54	93	6,440

(*a*) Excludes areas held under special arrangements: *see* following text. (*b*) At 30 June. (*c*) Excludes lands held under miners' rights and dredging claims. (*d*) Excludes holdings under miners' rights.

Control of exploration

This section refers in general to the exploration for all types of mineral deposits in Australia. Additional information relating to the search for petroleum is set out in the following section.

Following the introduction of large-scale modern prospecting methods (particularly air-borne prospecting), the small prospecting areas referred to in the previous section were found to be unsuitable in some instances, and steps have been taken in the States and Territories to ensure the availability of large areas for prospecting by interested persons. Large areas may be made available in either of the following ways:

(i) by the Minister of Mines withdrawing an area from the provisions of the Mining Act and giving an informal agreement that the prospector would have preference in applying for titles to leases within the area; or

(ii) by provision within the Mining Acts or Ordinances for the issue of authorities to prospect over an area defined by a written agreement which also sets out provisions as to the amount of money to be spent, methods of prospecting, tenure of the agreement, etc.

The tenure of such areas is limited, usually to one or two years only, and, if renewed for a further period, is only over an area selected from the larger area as a result of work done during the life of the initial agreement. Neither form of prospecting concession gives the holder any rights over, or authorities to prospect on, land already held under a mining title within the agreed area. Unless specifically stated in an agreement, the discovery of minerals, whether inside or outside an area covered by an authority to prospect, gives the discoverer no legal rights except the right to apply for a mining lease over the area in which the discovery was made. Suitable propsects are converted to mining tenements by making application for lease under the appropriate mining Act.

Control of petroleum exploration

On-shore. In Australia, all petroleum is, and shall be deemed always to have been, the property of the Crown. Consequently, full control of petroleum mining rights is vested in the Government or Administration of each State or Territory. Any company, organisation or individual proposing to undertake petroleum exploration or development must first satisfy the Government concerned that the necessary financial and technological resources are available to carry out the operation.

There are three main types of petroleum titles:

(*a*) the permit, covering initial geological, geophysical and exploration drilling;

(*b*) the licence (in Victoria only), which covers detailed surveys and drilling; and

(*c*) the lease, which covers development operations and production.

Further details of the petroleum legislation are given in Year Book No. 55, pages 996 and 997.

Off-shore. The *Petroleum (Submerged Lands) Act* 1967 is the instrument whereby the control and safeguarding of the exploration and exploitation of petroleum resources on the territorial sea-bed and on the continental shelf are assured. Complementary legislation has been passed by each State Government and by the Federal Government.

The legislation provides for a two-stage system of titles: the exploration permit, which covers all forms of exploration including drilling, and the production licence, which covers development and exploration. Royalty is generally shared between State and Federal Governments on a 60 : 40 basis; however, overriding royalty is payable to the State under certain conditions. Mineral royalty receipts of Governments under these Acts are included in the table on this page. For full details of the off-shore legislation, *see* Year Book No. 55, pages 997–8.

The table following shows details of areas occupied under both on-shore and off-shore petroleum exploration and development titles at 31 December 1965 to 1969.

AREAS OCCUPIED UNDER PETROLEUM EXPLORATION AND DEVELOPMENT TITLES: STATES AND NORTHERN TERRITORY, 31 DECEMBER 1965 TO 1969

('000 acres)

Year	*N.S.W.(a)*	*Vic.*	*Qld*	*S.A.(a)*	*W.A.*	*Tas.*	*N.T.(a)*	*Total*
1965 . .	105,853	31,201	324,205	221,060	491,670	34,800	120,130	1,328,916
1966 . .	113,276	31,174	389,252	237,649	429,994	34,800	239,519	1,475,664
1967 . .	83,893	32,348	252,213	240,791	426,107	37,979	221,666	1,294,997
1968 . .	96,522	37,585	297,671	207,260	317,497	34,905	99,505	1,090,945
1969 . .	88,174	36,636	269,150	212,188	298,888	37,433	74,472	1,016,941

(*a*) At 30 June.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally accepted practice. In Australia the responsibility for mineral royalties is largely a State concern, and all States currently collect some form of mineral royalty payments. In the past most States have relied on an established system of standard rates which were uniform for all producers of any particular mineral in the State concerned. These charges were either a fixed monetary amount per ton (e.g. 5c per ton on gypsum mined in New South Wales) or an *ad valorem* royalty (e.g. 1.5 per cent of gross value of gold produced in New South Wales).

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large scale developments. These royalty rates may vary, depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by Governments in recent years are shown in the table below.

MINERAL ROYALTY RECEIPTS: GOVERNMENTS 1964-65 TO 1968-69

($)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
New South Wales	19,946,772	24,317,168	16,326,973	11,029,697	9,067,603
Victoria	494,128	546,117	597,639	662,820	687,789
Queensland	1,201,264	1,183,046	2,241,575	1,711,503	1,544,417
South Australia	926,984	985,560	1,091,582	1,036,552	1,254,295
Western Australia	291,354	478,295	2,639,895	6,237,593	11,000,716
Tasmania	1,376	2,570	6,306	11,105	172,744
Northern Territory	80,894	88,727	110,574	290,701	282,616
Commonwealth	..	..	..	..	360

Control of exports

The Commonwealth Government maintains export controls over certain minerals and metals. These controls are enforced by means of Customs (Prohibited Exports) Regulations as amended from time to time by Statutory Rules. The Commonwealth authorities having jurisdiction over mineral and metal exports, together with the relevant products, are listed below. A clearance to export is needed in each case.

Department of National Development—iron ores, beneficiated iron ores and iron concentrates; mineral sands (whether treated or untreated), and concentrates of mineral sands, containing zircon, rutile or ilmenite; manganese ores; beryllium ores and concentrates; tin ores and concentrates, refined tin in the form of ingots or in any other refinery form, and any of the following materials from which tin may be obtained, being materials resulting from the refining of tin, that is to say, residues, slag, dross, dust and other wastes; copper matte, blister copper, copper scrap, copper refinery shapes; copper alloys in the form of ingots, billets, etc.; copper alloy scrap; any of the following materials from which copper may be obtained, that is to say, residues, speiss, slag, dross, scale, sweepings, ash, sludge, slime, dust and wastes; and natural gas.

Department of Primary Industry—phosphate rock, phosphate and superphosphate, and fertilisers containing phosphate or superphosphate.

Australian Atomic Energy Commission—minerals, raw and treated (including residues and tailings) containing more than 0.05 per cent of uranium or thorium, singly or together; uranium and thorium minerals including pitchblende and monazite; uranium, thorium, beryllium and lithium metals, compounds and alloys; hafnium-free zirconium metal, alloys and compounds; nickel metal in certain forms.

After a review of the copper controls administered by the Department of National Development, the Commonwealth Government announced in March 1969 that the ban on the export of copper scrap and ingots, and copper alloy scrap and ingots would be continued. Export permits are generally issued also for copper residues, dross, ashes, slag and similar materials, and primary copper materials.

Export controls on tin and other tin-bearing materials were introduced by the Commonwealth Government in 1968 for reasons arising from Australia's membership of the International Tin Agreement. The restrictions were lifted a year later.

The Minister for National Development announced on 20 January 1970 that the export of natural gas would be subject to control in order to conserve supplies for local use. Export will be permitted only from fields remote from significant local markets.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Commonwealth and of the State of New South Wales to carry out special administrative functions in regard to the New South Wales black coal mining industry. A summary of these functions is given below.

(i) To ensure that coal is produced in the State of New South Wales in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries;

(ii) to ensure that the coal resources of the State are conserved, developed, worked and used to the best advantage in the public interest;

(iii) to ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades, and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities; and

(iv) to promote the welfare of workers engaged in the coal industry in the State.

Australian Atomic Energy Commission

During 1953, Commonwealth legislation was enacted to set up an Atomic Energy Commission which is responsible, in an overall sense, for the production and utilisation of uranium in Australia. This Act, the *Atomic Energy Act* 1953, superseded the *Atomic Energy* (*Control of Materials*) *Act* 1946, but retains a provision of that Act which provides for the control of substances which could be used for production or use of atomic energy.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. Secondly, it is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. The Commission operates under the direction of the Minister for National Development.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed below.

Commonwealth Government Assistance

Assistance provided by the Commonwealth Government takes the form of income taxation concessions, subsidies, bounties, and technical assistance mainly through the work of the Bureau of Mineral Resources and the Commonwealth Scientific and Industrial Research Organization. A table showing direct Commonwealth Government payments to sectors of the mineral industry is included on page 915.

Income taxation concessions. One-fifth of the net income derived from mining for prescribed minerals in Australia or the Territory of Papua and New Guinea is exempt from tax. Principal minerals to which this concession applies are as follows: asbestos, bauxite, radio-active ores, rutile and zircon; and ores of copper, nickel and tin.

Income derived from mining principally for gold in Australia or the Territory of Papua and New Guinea is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent of the value of the total output.

Dividends paid wholly and exclusively out of exempt mining income are also exempt from tax.

One third of call moneys paid by resident and non-resident investors on non-redeemable shares in a company, whose principal business is mining or prospecting for minerals in Australia or the Territory of Papua and New Guinea, is allowable as a deduction from the investors' assessable income. Where the shares in such a company are issued after 9 May 1968, the deduction is dependent upon the company lodging a declaration that the call moneys have been, or will be, expended exclusively on the search for minerals (including petroleum) obtainable by mining.

Other valuable assistance has been given in the form of certain taxation concessions to encourage the search for petroleum and other minerals. Resident investors are permitted, for tax purposes, to deduct from their assessable income all application, allotment and call moneys paid for shares issued by petroleum exploration companies or companies engaged in prospecting or mining for other minerals obtainable by mining. These deductions are allowable only if the company elects to forgo an equivalent amount of the special deductions for capital expenditure to which it would otherwise be entitled. Many companies engaged in exploring for petroleum and other minerals have elected to pass on this benefit to their shareholders.

Special deductions for capital expenditure incurred in the discovery and mining of petroleum are allowable to a company deriving income from the sale of petroleum, and products of that petroleum, mined by the company in Australia or the Territory of Papua and New Guinea. A company is entitled to these deductions only when it produces Australian petroleum in commercial quantities The general effect of the deductions is to free the proceeds from the sale of Australian or Territory petroleum and its products from tax until all allowable capital expenditure has been fully recouped. Dividends paid wholly and exclusively out of profits so freed from tax are exempt.

Capital expenditure allowable to petroleum exploration companies includes, broadly, the cost of exploratory surveys, drilling and well-head plant, access roads and expenditure on housing and welfare.

A company mining or prospecting for minerals other than petroleum and gold may also be allowed special deductions for capital expenditure. Broadly, allowable capital expenditure includes expenditure on exploration and prospecting, preparation of a site for extractive mining operations, buildings, other improvements and plant necessary for those operations, access roads, certain treatment plant and housing and welfare.

The allowable capital expenditure of a general mining company may be deducted over the life of the mine, or twenty-five years, whichever is the lesser. Alternatively, the mine owner may elect to have the allowable capital expenditure deducted in the year it is incurred or, where appropriations have been made for such expenditure to be incurred in the following year, the deduction may be allowed in the year of the appropriation. Annual deductions for depreciation on mining plant may be allowed in lieu of spreading the cost over the life of the mine. Expenditure on housing and welfare may, at the option of the mine owner, be allowed over the life of the mine, or five years.

Special deductions are allowable for capital expenditure incurred on certain transport facilities used primarily and principally in relation to minerals mined in Australia, for the transport of raw minerals and certain specified products obtained from the processing of such minerals, or for transporting petroleum between the oil or gas field and a refinery or other terminal. The special deduction applies to expenditure incurred on a railway, road, pipe-line or similar transport facility. Allowable expenditure on transport facilities is deductible in equal annual instalments over a period of ten years.

Petroleum search subsidy. In 1957 the Commonwealth Government introduced the *Petroleum Search Subsidy Act* 1957 whereby stratigraphic drilling operations were subsidised to the extent of 50 per cent of cost. An amendment in 1959 widened the scope of operations for which subsidy was offered to include all types of geophysical surveys and off-structure drilling. Subsidy payments under the Act for the years 1965 to 1969 are shown in the table on page 1004 of Year Book No. 55.

Various amendments to the Act have altered the amount of subsidy and the type of operations to which a subsidy is applicable. The most recent amendment in 1969, provides for the payment of subsidy for approved operations completed before 30 June 1974. On-shore operations, both exploration drilling and geophysical, are subsidised at the rate of 30 per cent of approved costs. All similar off-shore operations are subsidised at a rate dependant upon the Australian financial contribution to the operation, the maximum rate being 30 per cent for operations wholly financed by Australian companies. Details of earlier amendments are given on page 1001 of Year Book No. 55.

Pricing of Australian crude oil. Early in 1965 the Tariff Board conducted a public inquiry to determine an appropriate price for Australian crude oil, having regard to the Commonwealth Government's desire to encourage the search for oil and the consequent need to offer sufficient incentive to exploration companies. At the same time the Government indicated that it was anxious to prevent or minimise increased costs of petroleum products to consumers and to ensure that refineries using Australian crude oil were not detrimentally affected in relation to other refineries. Evidence was heard from oil exploration, marketing and refining interests, government officials, coal and power interests, and major users of refined petroleum products. The Tariff Board recommended at that time that Australian crude oil should be valued at $US2.48 ($A2.21) a barrel at the nearest refinery centre, plus a differential for the quality of the oil produced. The Government adopted the Tariff Board's recommendations, and raised the incentive margin to 67 Australian cents a barrel; this margin to apply to all Australian crude oil producers.

To ensure that indigenous crude oil is used to the maximum extent in Australian refineries, the Government also adopted the Tariff Board's recommendation to impose penal import duties of 0.8 cents a gallon on crude oil and 2.4 cents a gallon on motor spirit to be paid by the companies which do not take their share of local crude oil. The share of local crude to be taken will be based on the importer's share of total imports of refinery feedstock or refined products or both.

Any oil found in the Territory of Papua and New Guinea will be covered by these policies in the same way as oil found in Australia.

Under these arrangements the price of Moonie crude is $A3.14 a barrel delivered Brisbane, broken down as follows: crude oil value $2.21; incentive margin $0.67; quality differential $0.26.

Subsequently, the Barrow Island field began production and is $3.24 a barrel delivered Kwinana.

This pricing structure was to remain operative until 17 September 1970.

However, the discovery of very large crude oil reserves in the Gippsland Shelf fields, due to begin production in 1969, revealed that this pricing structure could result in the Australian consumer paying more for indigenous petroleum products, than for similar products refined from imported crude oils. Following negotiations with the Commonwealth Government the Gippsland Shelf operators agreed to forgo the $0.67 a barrel incentive, plus a further $0.05 per barrel. This will result in the pricing of Gippsland Shelf crude oil at $2.47 per barrel in the early stages of production and $2.44 per barrel in the third quarter of 1970 to 17 September 1970, i.e. the original price of $3.19 minus 72 cents (incentive plus 5 cent discount). The further reduction to $2.44 is a quality differential reduction of 3 cents as heavier crude oils commingle with the stream.

An agreement was reached between the Commonwealth Government and representatives of private enterprise on the price structure for indigenous crude oil for the five-year period commencing 18 September 1970.

Gippsland Shelf crude oil will be priced at $2.06 per barrel f.o.b., Long Island Point, Westernport. This price is calculated as follows:

	per barrel $
Weighted average posted price as at 10 October 1968 of principal crudes imported into Australia	1.62
less weighted average discounts as at 10 October 1968	0.26
	1.36
plus weighted average overseas freights as at 10 October 1968	0.46
Wharfage and other charges as at 10 October 1968	0.07
	1.89
less a deduction for coastal freight	0.09
	1.80

To this, the quality differential of 26 cents per barrel is added giving a total of $2.06 per barrel.

Moonie crude oil on the same basis, for the five-year period will be $2.15 per barrel f.o.b. Brisbane, since the coastal freight deduction of 9 cents per barrel does not apply.

Barrow Island crude will be the basic $1.89 per barrel plus a quality differential of 32 cents, giving the total of $2.21 per barrel f.o.b. Kwinana.

The price structure of any indigenous crude will be subject to any changes in composition and quality that might occur during the course of production.

Assistance to the gold-mining industry. Assistance to the gold-mining industry by subsidy was introduced at a time of rising costs in the industry and fixed official world price for gold. Because many producers were faced with the likelihood of closing down, the Government decided to subsidise marginal producers in Australia and the Territories of Papua and New Guinea. Under the *Gold-Mining Industry Assistance Act* 1954 a producer, the value of whose gold output exceeded 50 per cent of the total value of his mine output, was eligible for assistance, subject to certain conditions, on the production of gold from 1 July 1954. The assistance scheme has been reviewed on a number of occasions since the Act was originally passed, and some liberalisations have been approved, including increases in the rates of subsidy payable authorised in amendments passed in 1957, 1959 and 1965.

Under the Act as it now stands the subsidy payable to small producers whose annual deliveries do not exceed 500 fine oz is $6 per fine oz, irrespective of cost of production. For large producers, subject to certain provisions, the rate of subsidy payable is an amount equal to three-quarters of the excess of the average cost of production over $27 per fine oz, with a maximum amount of subsidy of $8 per fine oz. A producer whose deliveries during the year exceed 500 fine oz may elect to be treated as a small producer. In this case the subsidy rate payable per fine oz on total deliveries is $6 reduced by 1c for each fine oz by which deliveries exceed 500 fine oz. The benefit under this provision terminates when deliveries in a year reach 1,100 fine oz. Where a producer receives an amount in excess of the official price of $31.25 per fine oz as a result of sales on overseas premium markets or otherwise, the subsidy payable is, with effect from 1 July 1968, reduced by seventy-five per cent of the amount of the excess. Prior to 1 July 1968 subsidy was reduced by the full amount of the excess.

Payments under the Act will apply to production until 30 June 1973. The amounts paid to gold producers in the various States and Territories of Australia in each of the years 1965 to 1969 are shown in the table on page 915.

Assistance to the copper mining industry. After a Tariff Board investigation, assistance was accorded to the industry in 1958, partly by import duty and partly by bounty. Under the *Copper Bounty Act* 1958–1966 bounty was payable, subject to specified conditions, on refined copper sold for use in Australia. The rate of bounty was $70 per ton when the overseas price, as determined by the Minister for Customs and Excise, was $580 or less. When the overseas price rose above $580, the bounty fell by the same extent, so that no bounty was payable when the overseas price was $650 or more. The Act lapsed on 31 December 1966. The import duty continues in operation, and is imposed on imports of copper when the overseas price falls below $580 a ton, to the extent of $1 for each $1 that the price falls below $580.

Assistance to producers of sulphuric acid and iron pyrites. Following recommendations of the Tariff Board, the *Sulphuric Acid Bounty Act* 1954 was extended for a period of five years from 1 July 1960. Arising from these same recommendations, the *Pyrites Bounty Act* 1960 was enacted on 15 December 1960 to be operative for a period of four and a half years from 1 January 1961. The Acts provide for bounties to be paid, subject to specified conditions, on sulphuric acid produced from prescribed materials of Australian origin and to producers of iron pyrites. Both of these Acts have now been extended by legislation to 30 June 1970. Payments under the above Acts in each of the years 1965 to 1969 are shown in the table on page 915.

Payments to producers of phosphate fertilisers. The *Phosphate Fertilizers Bounty Act* 1963–1969 provides for a bounty to be paid on superphosphate and ammoniated phosphate fertilisers manufactured and sold for use in Australia on and after 14 August 1963. An amendment to this Act provides that approved trace elements, compounds or substances, when added to superphosphate, shall be deemed to be superphosphate for purpose of bounty eligibility. The bounty is based on the fertiliser value of superphosphate as measured by its soluble content of phosphorus pentoxide. A standard grade of superphosphate containing 20 per cent, plus or minus 0.5 per cent, soluble content of phosphorus pentoxide qualifies for the full bounty of $12 per ton. When the phosphorus pentoxide content of the superphosphate is less than 19.5 per cent or above 20.5 per cent, bounty is payable at the rate of $60 for each ton of contained phophorus pentoxide. Bounty in respect of ammonium phosphate is payable at the rate of $60 for each ton of the phosphorus pentoxide content of the ammonium phosphate. In addition to standard grade superphosphate, 'double' and 'triple' superphosphates are produced in Australia and bounty on these products is payable in accordance with the phosphorus pentoxide content. The intention of this Act is to assist consumers of superphosphate (primary producers) and to this end the benefits of bounty are required to be passed on to the end user of the bountiable product. The Act is due to expire on 31 October 1971. Payments under the above Act in each of the years 1965 to 1969 are shown in the following table.

COMMONWEALTH GOVERNMENT PAYMENTS TO THE MINERAL INDUSTRY: AUSTRALIA, 1965 TO 1969

($)

Year	*Petroleum exploration (a)*	*Gold mining(b)*	*Pyrites mining(c)*	*Sulphuric acid production (d)*	*Phosphate fertiliser production (e)*
1965 . . .	10,412,842	1,984,966	1,113,964	2,138,914	22,604,562
1966 . . .	10,154,169	3,784,241	288,319	1,397,679	25,817,516
1967 . . .	10,326,587	3,858,763	45,714	1,382,485	25,543,785
1968 . . .	13,805,484	2,817,453	..	1,279,260	24,906,817
1969 . . .	14,911,351	1,076,521	..	988,450	31,665,208

(a) *Petroleum Search Subsidy Act* 1959–69. Includes payments in the Territory of Papua and New Guinea: *see also* the table on page 940. (b) *Gold-Mining Industry Assistance Act* 1954–1968 and *Gold Mines Development Assistance Act* 1962 (expired 30 June 1965). Includes payments in the Territory of Papua and New Guinea. (c) *Pyrites Bounty Act* 1960–1969. (d) *Sulphuric Acid Bounty Act* 1954–1969. (e) *Phosphate Fertilizers Bounty Act* 1963–1969.

Bureau of Mineral Resources, Geology and Geophysics. The functions of the Bureau of Mineral Resources, Geology and Geophysics are to explore, investigate and encourage the development of mineral deposits; to survey and assess the mineral resources of the Commonwealth and its Territories and to initiate and investigate proposals for their development; to interpret the results of completed surveys and recommend ways of remedying or meeting mineral deficiencies and to advise on all aspects of the mineral economy of Australia, including the best utilisation of mineral resources in the national interest; to carry out geological and geophysical surveys and investigations and advise on all aspects of applied geology and geophysics.

The Bureau comprises five branches under the Director: Operations, Mineral Resources, Geological, Geophysical, and Petroleum Exploration. The Operations Branch consists of three sections, Planning and Co-ordination, Publications and Information, and Administrative. It carries out central office functions, including planning and control of programme, assessment of results, co-ordination of activities, liaison, and distribution of information. The Mineral Resources Branch comprises the sections Mineral Economics, Mining Engineering, and Petroleum Technology, and is concerned largely with those aspects of the Bureau's work which involve studies of the mineral industry as a whole, and the preparation of advice and reviews for the Government, industry and the public. The Geological and Geophysical Branches are responsible for the principal field activities of the Bureau, and the operation of observatories, while the Petroleum Exploration Branch is concerned with the administration of the *Petroleum Search Subsidy Act* 1959–1969 and is also engaged in the assessment of sedimentary basins in Australia and its Territories. The establishment of the Bureau is 627 officers (at 30 June 1970), of whom 308 are professional. The budget for the financial year 1969–70 was $21.6 million, of which $14.3 million was provided for payment under the *Petroleum Search Subsidy Act* 1959–1969.

The Bureau maintains laboratories in Canberra and Darwin which are engaged on geochemical geochronological and petroleum technological studies and basic research into the design and testing of geophysical equipment. The Bureau also maintains a vulcanological observatory at Rabaul and geophysical observatories at Melbourne, Toolangi, Mundaring, Darwin, Port Moresby, Mawson and Wilkes (Antarctica), and Macquarie Island. The geophysical observatories are engaged in magnetic, ionospheric, and seismic investigations and are base stations for field operations.

Commonwealth Scientific and Industrial Research Organization. The activities of this body with respect to the mineral industry are discussed on page 917 under Research.

State Government assistance

In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

New South Wales. The State Mines Department renders scientific, technical and financial assistance to the mining industry. Grants, which are repayable in the event of pay minerals being discovered, are made to cover half the cost of prospecting and drilling operations. Loans may be made to prospectors and miners for the purchase of plant and machinery. A quantity of equipment is also available for hire in several localities. The Department has itself undertaken a programme of contract drilling to investigate the existence of mineral deposits in the State (including the testing and proving of coal resources). Expenditure on financial assistance in 1968–69 amounted to $637,000 including $95,000 on the Department's own drilling programme.

Victoria. The Mines Department provides loans for prospecting, development, or the purchase of machinery; ore crushing facilities through stamp mills at various parts of the State at nominal rates; diamond, rotary and percussion type drilling; mineral surveys; the provision of small and large scale geological maps of the State; and memoires and bulletins on specific regional and economic studies published periodically.

Detailed sedimentary basin studies are continuing in the Otway, Gippsland and Murray Basins to elucidate the stratigraphy and structure and evaluate the economic potential. The survey of the State's groundwater resources is now well advanced and the study of the provision of town supplies from groundwater sources is being investigated.

Queensland. The Department of Mines provides assistance to mining by way of grants for construction and maintenance of roads in mining areas, repayable advances or subsidies for mine development, hiring of equipment, and assistance to prospectors. The Department maintains a concentration plant for tin ores at Irvinebank, an assay office at Cloncurry, a battery for treatment of gold-bearing ores at Charters Towers, and diamond drilling plants in various parts of the State.

South Australia. The Department of Mines provides the following services and facilities to the mineral industry: (i) hire of drilling plant and mining equipment, drilling and testing of mineral deposits, financial assistance in approved cases for mining development, development of sub-surface water supplies for farming, pastoral, irrigation, and mining purposes; (ii) geological examination of mineral deposits, ground water supplies, dam foundation and drainage problems, guidance on mining legislation, and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, facilities for chemical, metallurgical, analytical and assay investigations, testing and treatment of ores and minerals, and petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

Western Australia. Prospectors receive assistance of either $15 or $17.50 a week according to the prospecting locality. North of the 26th parallel and within a defined area south of this lying largely outside the agricultural areas assistance is given to the extent of $17.50 a week. In the remainder of the State prospectors receive $15 a week. Provision is also made for the supply of some tools required for prospecting. There are nineteen State batteries operating intermittently throughout the goldfields for the treatment of ore from prospectors and small mine-owners at a nominal charge. A cartage subsidy is also granted to such operators sending gold ore to State batteries for treatment. Provision is made for loans to mine-owners who require assistance to develop mines. The Government also has a drilling scheme, financing mine-owners on a $1 for $1 basis.

Tasmania. The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or de-watering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work, and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry in the form of geological and engineering advice, through ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant.

Northern Territory. To encourage the development of the mining industry the Northern Territory Administration operates two batteries for the treatment of miners' ores. The Tennant Creek battery is currently cyaniding the gold in accumulated tailings while the Mount Wells battery is crushing parcels of tin ores and small quantities of gold, lead and copper ores. The crushing charges are subsidised by government grants. In addition, the Administration provides cartage subsidies and financial advances to encourage miners to carry out mining operations. Assistance is also given to the industry by drilling encouraging prospects. Roads and water supply services are provided and maintained for mines under active development throughout the Territory.

Research

Research investigations into problems of mining, ore-search, ore-dressing and metallurgy are conducted by Governmental bodies, by universities, by private enterprise, and by combined efforts of these bodies. A summary of their functions follows.

Australian Atomic Energy Commission

The Australian Atomic Energy Commission conducts research at its laboratories at Lucas Heights in Sydney on the development of nuclear power, including research on nuclear materials and on metals and ceramics used for nuclear power. Research conducted by the Commission is discussed in detail in Chapter 20, Education, Cultural Activities and Research.

Australian Mineral Development Laboratories

Contract research and technical consulting for the mineral and associated industries is undertaken by The Australian Mineral Development Laboratories (Amdel), at Adelaide. This Organisation is controlled by a council comprising representatives of the mineral industry, the South Australian Government and the Commonwealth Government. Extensive facilities are available in the fields of analytical chemistry, mineralogy and petrology, chemical and metallurgical engineering, computer services/operations research, and materials technology. Both long and short term applied research is carried out and all investigations are conducted on a strictly confidential basis.

The Baas Becking Geobiological Research Laboratory

In 1965 the Baas Becking Geobiological Research Laboratory was established in the Bureau of Mineral Resources Building in Canberra, under the joint sponsorship of the Commonwealth Scientific and Industrial Research Organization, the Bureau of Mineral Resources, and the Australian Mineral Industries Research Association (*see* Research by private enterprise, page 918). The broad objective of the research work is to investigate the biological and chemical processes associated with the formation of mineral deposits of the stratiform type.

Initial emphasis is being placed on investigations to establish the relationship of biological factors to the natural physico-chemical environment with particular reference to the possible role of these factors in the formation and transformation of sulphide minerals. Investigations have included the response of micro-organisms to heavy metals; biochemistry and physiology of oxidative and reductive sulphur transformations; role of organisms in the concentration of mineral elements; physico-chemistry of low-temperature mineral synthesis; mobility of sulphides under the influence of temperature and pressure and the interaction of mineral types; and biological leaching of low-grade sulphide minerals.

Bureau of Mineral Resources, Geology and Geophysics

Mineral research by the Bureau of Mineral Resources is concerned with basic problems of mineral emplacement. Special studies are undertaken of: the sedimentary environment of potentially oil-bearing rocks; the genesis of continental and marine phosphate; the fundamental chemistry of metallic ore deposits; the structural, chemical, and stratigraphic contents of ore deposits; and geophysical interpretation by means of model testing.

For details of the functions of the Bureau of Mineral Resources, Geology and Geophysics, *see* page 915.

Commonwealth Scientific and Industrial Research Organization

Research for the mineral industry by the Commonwealth Scientific and Industrial Research Organization is undertaken mainly in the Divisions of Applied Mineralogy, Mineral Chemistry, and Chemical Engineering. All of these groups have laboratories in Melbourne. In addition, the Division of Applied Mineralogy has laboratories in Perth and Sydney, and the Division of Mineral Chemistry has a laboratory in Sydney.

The research programme of the Division of Applied Mineralogy is concerned mainly with the production and utilisation of natural and synthetic mineral products. Research is undertaken on cement and concrete, industrial refractories, engineering ceramics, clays, mineral-organic complexes, fillers, foundry materials and on the genesis of ores and the geochemistry of some economic minerals. The Division of Mineral Chemistry is undertaking research aimed at a more thorough evaluation of Australian minerals and their better utilisation through chemical, electrochemical and metallurgical processes. It includes studies on mineral exploration techniques, and the processing and utilisation of minerals as well as broad based investigations related to more general aspects of mineral science and technology. The Division is working closely with industry on sulphide minerals, mineral sands, iron ores, coal and industrial carbons. In the Division of Chemical Engineering, projects of particular interest to the mineral industry includes studies on the dynamics and automatic control of mineral processing operations such as grinding, classifying and flotation, fluidised-bed techniques, high-temperature extraction metallurgy and metal refining.

All C.S.I.R.O. groups taking part in mineral research are in close contact with industry. Several projects are being developed by collaboration between C.S.I.R.O. and Australian firms and a significant proportion of the Organization's mineral research is now carried on with funds provided by industry. A committee set up by the Advisory Council of C.S.I.R.O. is continuing to examine and advise on research needs in the mining and processing industries in the changing environment.

National Coal Research Advisory Committee

The functions of the National Coal Research Advisory Committee are to review coal research activity in Australia, to recommend priorities for further activities in this area, and to allocate special Commonwealth funds of $260,000 per year provided for coal research projects as recommended by the committee. This amount is additional to that expended by C.S.I.R.O. and Commonwealth Departments on coal research. The major beneficiary under this scheme is the Australian Coal Industry Research Laboratories; other beneficiaries are the State Electricity Commission of Victoria (for brown coal research) and the Universities. From 1965 to 1969 special coal research funds of $520,000 annually were available to the committee, comprising the Commonwealth contribution of $260,000 matching an equivalent total contribution from State Governments and coal producing and consuming industries. Beginning with the financial year 1968–69 the States and industry are independently sponsoring coal research and development according to their own individual requirements.

University Research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

Most large mining and smelting companies have laboratories dealing with their own individual immediate problems. Private industry has formed the Australian Mineral Industries Research Association, which is composed of fifty members representing a large proportion of the mining, metallurgical and related companies operating in Australia at present. It was set up in 1959, chiefly to represent private industry in the management of the Australian Mineral Development Laboratories, but the Association now finances other research work into geology, mining and ore-dressing at Universities, C.S.I.R.O., and the Australian Mineral Development Laboratories. Expenditure for the year 1968–69 was $165,819.

In addition, the Association provided $50,000 to the Australian Mineral Development Laboratories towards the cost of a new building (the first of four such payments) and an advance of $41,000 to International Technical Services Limited. The latter is a new non-profit consulting company jointly owned by the Association and Battelle Memorial Institute, Columbus, U.S.A. and associated with the Australian Mineral Development Laboratories.

International relations

Because Australia is a large supplier of certain minerals to the rest of the world and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Commonwealth Government takes an active role in international consultations and discussions relating to minerals. The most important international commitments are dicussed below.

International Tin Agreement

The First International Tin Agreement (of the post-war period) was in operation for five years from 1 July 1956 to 30 June 1961. This Agreement was subsequently replaced by the Second International Tin Agreement, which came into force provisionally on 1 July 1961 and definitively on 21 February 1962.

This Agreement was for a period of five years and had the following objectives:

(*a*) to prevent or alleviate widespread unemployment or under-employment and other serious difficulties likely to arise from maladjustments between the supply and the demand for tin;

(*b*) to prevent excessive fluctuations in the price of tin and to achieve a reasonable degree of stability of price;

(*c*) to ensure adequate supplies of tin at prices which are fair to consumers and provide a reasonable return to producers; and

(*d*) to provide a framework for the consideration of measures to promote the progressively more economic production of tin, while protecting deposits of tin from unnecessary waste or premature abandonment, thus facilitating expansion in world consumption of tin; and to keep under review the long-term need for the development of new deposits of tin.

The Third International Tin Agreement, which came into force provisionally on 1 July 1966 and definitively on 21 March 1967, contains several additional objectives:

(*a*) to ensure conditions which will help achieve a dynamic and rising rate of production of tin on the basis of a remunerative return to producers, which will help secure an adequate supply at prices fair to consumers and which will help provide a long-term equilibrium between production and consumption;

(*b*) in the event of a serious shortage of supplies of tin occurring or being expected to occur, to take steps to secure an increase in the production of tin and a fair distribution of tin metal at equitable prices.

Although the framework of the Third Agreement is basically that of the Second, objectives have been broadened in line with the principles of the United Nations Conference on Trade and Development (UNCTAD) and, as such, emphasise the need for expansion of export earnings in the developing countries. Thus the emphasis has been shifted from surplus production and export controls inherent in the Second Agreement to one of increased production in the new Agreement.

The Agreement is operated by the International Tin Council, which is made up of the following Governments: Australia, Austria, Belgium, Bolivia, Canada, Czechoslovakia, Democratic Republic of the Congo, Denmark, France, India, Indonesia, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Federation of Nigeria, Spain, Thailand, Turkey, United Kingdom. Member Governments participate as producing or consuming countries. The producing countries hold a total of 1,000 votes, distributed so that each country receives five initial votes and an additional number corresponding to its percentage as laid down by the Agreement. The consuming countries hold a total of 1,000 votes also distributed so that each country receives five initial votes and an additional number proportionate to tonnages. The allocation of votes in each category is periodically reviewed.

The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading on the London Metal Exchange, aims at confining the price within these limits. The buffer stock was established with contributions from producing countries, equivalent to 10,000 long tons of metal, wholly made in cash at £stg1,000 per long ton; a further £10 million remains on call from the producer members and a standby-credit facility of £10 million from a consortium of banks. The original buffer stock price range under the Third Agreement was: ceiling £1,400—must sell; £1,300 to £1,400—may sell; £1,200 to£ 1,300—no action; £1,100 to £1,200 —may buy; floor £1,100—must buy. However, following devaluation of sterling, the buffer stock price range was adjusted to the following limits: £1,630—must sell; £1,515 to £1,630—may sell; £1,400 to £1,515—no action; £1,280 to £1,400—may buy; £1,280—must buy.

On 18 September 1968 the International Tin Council declared the period 19 September 1968 to 31 December 1968 to be a period of export control. The total permissible export amount during that period for the six producing members in the agreement, Bolivia, Congo D.R., Indonesia, Malaysia, Nigeria, and Thailand, was 42,950 long tons. The quotas established for the producer members represented a moderate cut, in effect some 4 per cent on reports in the second quarter of 1968. The Council also addressed an invitation to the Australian Government, asking that Australia limit its exports of tin to the same degree and for the same period as the producer members of the Agreement. The Australian Government introduced export controls on tin and tin concentrates as from 6 December 1968. Export restrictions on tin were lifted in early December 1969.

A United Nations Tin Conference under UNCTAD auspices negotiated a Fourth International Tin Agreement in Geneva during April and May 1970. The new Agreement is designed to follow the existing one which will expire on 30 June 1971. The objectives of the Agreement remain basically unchanged. They include maintaining a balance between world production and consumption of tin, preventing excessive fluctuations in the market price and increasing export earnings of producer countries. The basic mechanism of the Agreement remains unchanged, although greater flexibility is buffer stock operations is provided for, especially as regards buying and selling tin in the upper and lower sections of the price range set by the International Tin Council. The price range will initially be the same as that in force at the end of the present Agreement. The current range, subject to revision by the Council, is £1,260 to £1,605 per metric ton.

International Lead-Zinc Study Group

With the cessation of stockpile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious imbalance between world supply and demand for these metals. To meet this problem a series of meetings of interested governments was held, at which Australia was represented. These meetings culminated in the formation of the International Lead-Zinc Study Group which was established in January 1960. The Study Group comprises the following Governments: Algeria, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Finland, France, the Federal Republic of Germany, Hungary, India, Italy, Japan, Mexico, Morocco, the Netherlands, Norway, Peru, Poland, the Republic of South Africa, Spain, Sweden, Tunisia, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Yugoslavia, Zambia. The Group provides opportunities for inter-governmental consultations on international trade in lead and zinc and for studies of the world situation in lead and zinc having regard especially to the desirability of providing continuous accurate information regarding the supply and demand position and its probable development.

MINERAL INDUSTRY STATISTICS

Statistics presented in this chapter refer mainly to mining and quarrying, mineral exploration, and overseas participation in Australian mining industry. Data relating to mineral processing and treatment activities are included where appropriate to present a more complete picture of the place of minerals in the Australian economy.

Mining and quarrying

Definition

The mining and quarrying industry is defined for statistical purposes as including all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc., and ore-dressing and elementary smelting of gold and miscellaneous treatment of non-metallic minerals where these operations are carried out in an associated plant at or near the mine. However, establishments primarily engaged in smelting and or refining (including the smelting and refining sections of the large plants operated at Mount Morgan and Mount Isa in Queensland and at Mount Lyell in Tasmania) are excluded from the statistical definition of the mining industry and are classified to the manufacturing industry.

Coverage

The statistical coverage of establishments engaged in mining is considered to be satisfactory. However, coverage of establishments engaged in the quarrying of construction materials is incomplete in most States. This deficiency is due primarily to the inherent difficulty of obtaining complete lists of quarries (including those operated by government authorities), many of which operate intermittently and in different locations. There is difficulty also in obtaining satisfactory returns from quarries operated in conjunction with some other activity, e.g. roadmaking, brick-works, etc., and quarries operated in conjunction with large construction projects, such as the Snowy Mountains Scheme, are excluded from these statistics. In some States there have been deficiencies also in the collection of data for certain non-metal (excluding fuel) mining industries, mainly because these are outside the fields normally under the administrative control of Mines Departments. Products chiefly affected are clays, loam and silica.

Sources of Statistics

Mining industry data (such as employment, costs, value of output, etc.) have been obtained annually since 1952 from the Mining and Quarrying Census. This Census is carried out in collaboration with the several Mines Departments and involves the uniform collection of particulars from all establishments employing on the average four or more persons during the period worked by the mine. A representative specimen collection form is included in the bulletin *Non-Rural Primary Industries*, No. 2, 1965–66 and 1966–67. For smaller mines either simplified census returns covering number of persons employed and value of output are collected, or these particulars are compiled from data made available by the Mines Departments. Oil search operations are excluded from the annual census, but the Bureau of Mineral Resources conducts an annual survey of these activities.

Mineral production statistics contained in this chapter consist, in the main, of data from the annual census and official statistics of the Mines Departments of the several States and of the Northern Territory Mines and Water Resources Branch. The particulars shown have been compiled as far as practicable on the standarised basis which has been used in Australia since 1950, and this presentation has involved some re-arrangement of official statistics published by the Mines Departments in some States. These statistics have been supplemented, as necessary, by data obtained from the Statisticians of the several States, the Bureau of Mineral Resources, Geology and Geophysics, the Joint Coal Board and from several other sources.

Classification of mining and quarrying industry

The mining and quarrying industry is classified into four major groups, namely metal mining, fuel mining, non-metal mining (excluding fuel), and construction material quarrying. Mining and quarrying establishments are classified to these groups and to sub-divisions of these groups on the basis of the product or products of the establishments. This method of classification is straightforward for those establishments which produce only one product, but for mines and quarries which produce more than one product classification is according to the most important mineral produced in terms of value. Thus a mine producing, say, both tin and tungsten minerals would be classified as a tin mine if tin were the most important product by value, and as a tungsten mine if tungsten were the dominant product. There is, however, one important exemption to this rule in that the mining establishment at Mount Isa is classified to the silver-lead-zinc sector rather than to the copper-gold sector.

For mines and quarries which produce more than one product it is not possible to apportion particulars of operations (such as employment, salaries and wages paid, costs) to the minerals produced. In practice, then, these data are recorded only as a total for each mine, and the mine is classified to an industry sector as outlined above.

Statistics relating to the structure of the industry, employment, production costs, value of additions and replacements to fixed assets, and value of output and production are given below and in the following pages.

Number of mines and quarries

The following tables show the number of mines and quarries which operated in each State and Territory in 1968 and in Australia for the years 1964 to 1968.

NUMBER OF MINES AND QUARRIES: STATES AND TERRITORIES, 1968

Industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Metal mining—									
Gold	13	7	25	1	110	..	4	..	160
Silver-lead-zinc	11	..	6	5	5	1	2	..	30
Copper-gold	16	1	174	7	7	1	8	..	214
Tin	37	4	241	..	15	31	13	..	341
Mineral sands	12	..	6	..	4	1	..	..	23
Iron	..	..	..	1	8	1	2	..	12
Other metal	18	1	18	3	8	5	6	..	59
Total, metal mining	*107*	*13*	*470*	*17*	*157*	*40*	*35*	..	*839*
Fuel mining—									
Black coal—									
Underground	81	1	43	..	2	3	..	..	130
Opencut	11	..	7	1	1	..	..	..	20
Total, black coal	92	1	50	1	3	3	..	..	150
Brown coal	..	5	..	..	..	..	..	..	5
Other fuel	..	1	3	..	1	..	..	..	5
Total, fuel mining	*92*	*7*	*53*	*1*	*4*	*3*	..	..	*160*
Non-metal (excluding fuel) mining(*a*)	699	106	150	113	60	24	..	..	1,152
Total, all mining	*898*	*126*	*673*	*131*	*221*	*67*	*35*	..	*2,151*
Construction material quarrying(*a*)	483	412	70	233	59	101	23	14	1,395
Total, all mining and quarrying	**1,381**	**538**	**743**	**364**	**280**	**168**	**58**	**14**	**3,546**

(*a*) Incomplete, owing to difficulties of coverage. *See* Coverage, page 920.

NUMBER OF MINES AND QUARRIES: AUSTRALIA, 1964 TO 1968

Industry	*1964*	*1965*	*1966*	*1967*	*1968*
Metal mining—					
Gold	246	193	179	171	160
Silver-lead-zinc	20	32	30	32	30
Copper-gold	86	75	124	174	214
Tin	371	391	363	393	341
Mineral sands	20	21	23	25	23
Iron	(*a*)	(*a*)	11	11	12
Other metal	56	53	52	69	59
Total, metal mining	*799*	*765*	*782*	*875*	*839*
Fuel mining—					
Black coal	179	168	158	150	150
Brown coal	7	6	5	5	5
Other fuel	3	3	4	5	5
Total, fuel mining	*189*	*177*	*167*	*160*	*160*
Non-metal (excluding fuel) mining(*b*)	756	802	973	1,098	1,152
Total, all mining	*1,744*	*1,744*	*1,922*	*2,133*	*2,151*
Construction material quarrying(*b*)	1,148	1,234	1,276	1,280	1,395
Total, all mining and quarrying	**2,892**	**2,978**	**3,198**	**3,413**	**3,546**

(*a*) Included in Other metal. (*b*) Incomplete. *See* Coverage, page 920.

Employment in mining and quarrying

Persons engaged. Statistics of persons employed in the mining and quarrying industry are derived mainly from the annual census of that industry. Data on the work force employed in the industry are also obtained from the population censuses of Australia. The population census figure for mining and quarrying includes a number of persons excluded from the mining and quarrying census employment figure, e.g. persons engaged in exploration activities, prospectors, head office employees, etc. The number of persons whose industry statements were classified to 'mining and quarrying' at the population census of 30 June 1966 was 56,343 out of a total of 512,994 for all primary industries, and 4,856,455 in the total work force. For further information *see* the chapter Employment and Unemployment and 1966 Census Bulletin No. 9.6, *Population, By Industry and Occupational Status, Australia.*

The following two tables are derived from mining census data and show the average numbers engaged in the various mining industries in each State or Territory in 1968 and in Australia for the years 1964 to 1968. The figures show the average number of persons employed during the whole year, including working proprietors.

MINING AND QUARRYING: EMPLOYMENT(*a*)
STATES AND TERRITORIES, 1968

Industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Metal mining—									
Gold	6	101	(*b*)	..	3,263	..	(*b*)	..	3,602
Silver-lead-zinc	4,287	..	5,501	(*b*)	16	(*b*)	76	..	9,490
Copper-gold	388	5		5	(*b*)	(*b*)	(*b*)	..	3,016
Tin	213	30	377	..	147	749	28	..	1,544
Mineral sands	1,552	..	780	..	(*b*)	(*b*)	..	..	2,694
Iron	..	..	..	(*b*)	(*b*)	(*b*)	118	..	1,999
Other metal	41	..	(*b*)	(*b*)	(*b*)	(*b*)	215	..	1,670
Total, metal mining	*6,487*	*136*	*7,093*	*452*	*5,877*	*2,909*	*1,061*	..	*24,015*
Fuel mining—									
Black coal—									
Underground	12,452	(*c*)112	(*b*)	..	(*b*)	60	..	..	(*c*)14,946
Opencut	272	..	(*b*)	253	(*b*)	..	..	..	1,362
Total, black coal	12,724	112	(*c*)2,301	253	(*c*)858	60	..	..	(*c*)16,308
Brown coal	..	1,487	..	..	..	..	..	..	1,487
Total, fuel mining	*12,724*	*1,599*	*2,301*	*253*	*858*	*60*	..	..	*17,795*
Non-metal (excluding fuel) mining(*d*)	1,713	361	478	529	258	94	..	..	3,433
Total, all mining	*20,924*	*2,096*	*9,872*	*1,234*	*6,993*	*3,063*	*1,061*	..	*45,243*
Construction material quarrying(*d*)	2,815	1,809	472	699	370	213	71	78	6,527
Total, all mining and quarrying	**23,739**	**3,905**	**10,344**	**1,933**	**7,363**	**3,276**	**1,132**	**78**	**51,770**

(*a*) Average employment during whole year, including working proprietors. (*b*) Not available for publication. (*c*) Includes Other fuel mining. (*d*) Incomplete, owing to difficulties of coverage. *See* Coverage, page 920.

MINING AND QUARRYING: EMPLOYMENT(*a*), AUSTRALIA, 1964 TO 1968

Industry	*1964*	*1965*	*1966*	*1967*	*1968*
Metal mining—					
Gold	4,753	4,525	4,447	4,074	3,602
Silver-lead-zinc	7,811	7,269	8,681	9,703	9,490
Copper-gold	2,341	2,312	2,554	2,712	3,016
Tin	1,191	1,402	1,550	1,748	1,544
Mineral sands	1,734	2,000	2,434	2,543	2,694
Iron	(*b*)	(*b*)	1,323	1,609	1,999
Other metal	1,348	2,251	972	1,299	1,670
Total, metal mining	*19,178*	*19,759*	*21,961*	*23,688*	*24,015*
Fuel mining—					
Black coal(*c*)	15,364	15,391	15,169	15,448	16,308
Brown coal	1,673	1,710	1,760	1,677	1,487
Total, fuel mining	*17,037*	*17,101*	*16,929*	*17,125*	*17,795*
Non-metal (excluding fuel) mining(*d*)	2,783	2,795	2,930	2,803	3,433
Total, all mining	*38,998*	*39,655*	*41,820*	*43,616*	*45,243*
Construction material quarrying(*d*)	5,814	6,217	5,957	5,848	6,527
Total, all mining and quarrying	**44,812**	**45,872**	**47,777**	**49,464**	**51,770**

(*a*) Average employment during whole year including working proprietors. (*b*) Included in Other metal. (*c*) Includes Other fuel mining. (*d*) Incomplete, *see* Coverage, page 920.

Size classification of mines and quarries. The following table shows the distribution of the total number of mines into various size groups according to the average number of persons employed *during the period worked* by each mine in 1968.

NUMBER OF MINES AND QUARRIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED: STATES AND TERRITORIES, 1968

Mines and quarries employing on the average(a)—	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T. and A.C.T.*	*Aust.*
Less than 4 persons—								
Establishments	1,060	356	588	280	176	124	50	2,634
Persons	1,942	512	1,008	473	437	208	72	4,652
From 4 to 20 persons—								
Establishments	206	152	104	71	66	30	12	641
Persons	1,460	1,196	1,009	626	547	211	110	5,159
From 21 to 200 persons—								
Establishments	84	30	45	11	29	9	9	217
Persons	6,368	2,504	2,497	558	2,463	677	609	15,676
More than 200 persons—								
Establishments	31	..	6	2	9	5	1	54
Persons	14,155	..	6,546	587	4,281	2,413	442	28,424
Total—								
Establishments	**1,381**	**538**	**743**	**364**	**280**	**168**	**72**	**3,546**
Persons	**23,925**	**4,212**	**11,060**	**2,244**	**7,728**	**3,509**	**1,233**	**53,911**

(*a*) Average during period worked. Includes working proprietors.

Accidents in mining. Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury. In 1968, 42 persons were recorded as killed and 1,129 as injured in mining (excluding quarrying) accidents. Recorded deaths and injuries in that year in black coal mines were 13 and 292, silver-lead-zinc mines 6 and 306, gold mines 10 and 227. In mineral sands mining there was 1 death and 55 injuries reported. Persons killed and injured in the construction material quarrying industry numbered 5 and 109 respectively in 1968.

Salaries and wages paid

Salaries and wages paid in the mining and quarrying industries in Australia during each year 1964 to 1968 are shown in the following table. Information regarding rates of wages paid in the mining industry is shown in the chapter Labour, Wages and Prices (page 248) and also in the *Labour Report.*

MINING AND QUARRYING: SALARIES AND WAGES PAID(*a*), AUSTRALIA 1964 TO 1968

($'000)

Industry	*1964*	*1965*	*1966*	*1967*	*1968*
Metal mining—					
Gold	11,812	11,974	12,409	12,591	11,465
Silver-lead-zinc	29,948	34,397	44,651	46,711	49,225
Copper-gold	6,834	7,415	8,205	9,235	10,780
Tin	2,648	3,313	4,156	5,035	5,056
Mineral sands	4,706	5,837	7,673	8,603	10,015
Iron	(*b*)	(*b*)	4,917	7,529	9,631
Other metal	4,038	7,241	3,683	5,790	7,372
Total, metal mining	*59,986*	*70,177*	*85,696*	*95,495*	*103,544*
Fuel mining—					
Black coal(*c*)	52,204	55,942	60,191	65,549	75,607
Brown coal	5,144	5,503	5,672	5,662	5,729
Total, fuel mining	*57,348*	*61,445*	*65,863*	*71,210*	*81,335*
Non-metal (excluding fuel) mining(*d*)	6,248	6,388	6,821	5,570	6,753
Total, all mining	*123,582*	*138,010*	*158,380*	*172,275*	*191,632*
Construction material quarrying(*d*)	9,364	10,751	11,256	11,136	11,290
Total, all mining and quarrying	**132,946**	**148,761**	**169,636**	**183,411**	**202,922**

(*a*) Excludes mines and quarries employing less than four persons, and drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (*b*) Included in Other metal. (*c*) Includes Other fuel mining. (*d*) Incomplete. *See* Coverage, page 920.

Power, fuel, light, and materials, etc. used

MINING AND QUARRYING: VALUE OF POWER, FUEL, LIGHT, AND OTHER MATERIALS AND STORES USED, AUSTRALIA, 1964-1968

($'000)

Industry	*1964*	*1965*	*1966*	*1967*	*1968*
Metal mining—					
Gold	8,334	8,433	8,207	8,147	7,397
Silver-lead-zinc	22,688	21,009	22,265	24,923	26,479
Copper-gold	7,698	8,365	10,537	12,544	14,501
Tin	1,854	2,115	3,095	3,676	4,336
Mineral sands	5,496	6,138	7,569	7,820	9,761
Iron	(*a*)	(*a*)	3,923	11,564	16,047
Other metal	3,162	4,366	2,285	3,656	4,914
Total, metal mining	*49,234*	*50,427*	*57,883*	*72,329*	*83,434*
Fuel mining—					
Black coal(*b*)	29,114	31,718	35,746	41,069	49,125
Brown coal.	1,532	2,108	2,082	1,968	1,987
Total, fuel mining	*30,648*	*33,827*	*37,828*	*43,036*	*51,112*
Non-metal (excluding fuel) mining(*c*) .	5,342	5,720	5,641	5,209	6,189
Total, all mining	*85,226*	*89,974*	*101,351*	*120,574*	*140,735*
Construction material quarrying(*c*) . .	9,728	11,067	12,072	13,115	14,106
Total, all mining and quarrying . .	**94,952**	**101,041**	**113,423**	**133,689**	**154,841**

(*a*) Included in Other metal. (*b*) Includes Other fuel mining. (*c*) Incomplete. *See* Coverage, page 920.

Value of additions and replacements to fixed assets in mining and quarrying

MINING AND QUARRYING: VALUE OF ADDITIONS AND REPLACEMENTS TO FIXED ASSETS(*a*), AUSTRALIA, 1964 TO 1968

($'000)

Industry	*1964*	*1965*	*1966*	*1967*	*1968*
Metal mining—					
Gold	1,365	1,094	1,195	1,558	2,516
Silver-lead-zinc	20,071	10,939	12,535	14,595	8,350
Copper-gold	7,419	5,333	6,085	5,813	7,234
Tin	4,459	6,583	9,798	10,361	3,651
Mineral sands	3,592	6,729	11,103	9,674	11,470
Iron	(*b*)	(*b*)	36,436	20,112	18,829
Other metal	5,556	32,228	13,051	12,827	14,373
Total, metal mining	*42,462*	*62,906*	*90,203*	*74,939*	*66,423*
Fuel mining—					
Black coal(*c*)	19,952	28,695	45,442	71,506	109,281
Brown coal.	5,416	6,115	5,107	5,277	7,668
Total, fuel mining	*25,368*	*34,810*	*50,548*	*76,783*	*116,949*
Non-metal (excluding fuel) mining(*d*) .	3,497	2,109	3,638	8,302	9,927
Total, all mining	*71,327*	*99,825*	*144,387*	*160,024*	*193,299*
Construction material quarrying(*d*) . .	5,867	7,303	5,273	7,640	6,744
Total, all mining and quarrying . .	**77,194**	**107,128**	**149,661**	**167,664**	**200,043**

(*a*) Excludes mines and quarries employing less than four persons. (*b*) Included in Other metal. (*c*) Includes Other fuel mining. (*d*) Incomplete. *See* Coverage, page 920.

Value of output and production

The following tables show particulars of value of output on an ex-mine basis (local value of production) and value of production (net value of production) for recent years. *These statistics are on an industry basis and not by product.* A more detailed reference to the value of production of mining and quarrying and other industries together with a brief explanation of terms used will be found in the chapter Miscellaneous.

Local value of mining and quarrying production. The following table shows particulars of the local value of production of mining and quarrying for 1968 and earlier years.

Due to the fact that the classification of individual mines to industry is on the basis of the principal mineral produced, the values in the following table for mining industry groups differ slightly in some cases from the totals of the corresponding groups of mine products shown in the table on page 933.

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION(*a*) STATES AND TERRITORIES, 1964 TO 1968

($'000)

Industry and year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1968—									
Metal mining—									
Gold	4	451	(*b*)	..	19,852	..	(*b*)	..	25,831
Silver-lead-zinc	72,083	..	99,876	41	(*b*)	(*b*)	601	..	173,337
Copper-gold	8,352	10		15	(*b*)	(*b*)	6,127	..	39,232
Tin	3,683	162	3,093	..	1,967	8,356	56	..	17,317
Mineral sands	23,127	..	10,398	..	4,854	..	..	..	38,379
Iron	..	..	..	13,048	110,942	(*b*)	(*b*)	..	131,518
Other metal	179	1	(*b*)	1,230	(*b*)	(*b*)	7,668	..	43,571
Total, metal mining	*107,428*	*624*	*133,011*	*14,334*	*148,845*	*41,114*	*23,828*	..	*469,185*
Fuel mining—									
Black coal	144,899	209	35,436	3,053	4,817	371	..	..	188,786
Brown coal	..	21,555	..	..	..	..	..	..	21,555
Other fuel	..	..	8,225	..	31,083	..	..	..	39,308
Total, fuel mining	*144,899*	*21,765*	*43,661*	*3,053*	*35,900*	*371*	..	..	*249,649*
Non-metal (excluding fuel) mining—									
Clays(*c*)	3,761	3,373	317	721	557	106	..	..	8,835
Gypsum	151	161	..	(*b*)	(*b*)	..	..	..	2,165
Limestone	3,305	(*b*)	2,946	2,487	(*b*)	556	..	..	12,382
Salt	..	(*b*)	(*b*)	2,443	(*b*)	..	..	..	3,600
Other non-metal mining(*c*)	3,421	(*b*)	(*b*)	(*b*)	(*b*)	27	..	..	9,946
Total, non-metal mining	*10,637*	*6,833*	*4,149*	*12,465*	*2,155*	*690*	..	..	*36,928*
Total, all mining	*262,964*	*29,221*	*180,822*	*29,853*	*186,900*	*42,175*	*23,828*	..	*755,762*
Construction material quarrying(*c*)	37,041	29,805	5,080	12,211	7,591	2,793	1,018	1,195	96,735
Total, all mining and quarrying, 1968	**300,005**	**59,026**	**185,902**	**42,064**	**194,491**	**44,968**	**24,846**	**1,195**	**852,497**
1967	275,929	57,339	135,510	40,449	134,319	34,688	19,317	1,087	698,636
1966	263,751	53,156	138,483	41,954	78,918	34,561	13,282	1,046	625,152
1965	267,673	48,926	98,964	39,466	49,072	28,998	8,286	986	542,370
1964	233,298	44,892	97,286	38,938	45,366	25,048	7,234	738	492,800

(*a*) Value of output or selling value of products at the mine or quarry. (*b*) Not available for publication, included in total for Australia. (*c*) Incomplete. *See* Coverage, page 920.

Net value of mining and quarrying production

The following table shows particulars of the net value of production of mining and quarrying for 1968 and earlier years.

MINING AND QUARRYING: NET VALUE OF PRODUCTION(*a*)
STATES AND TERRITORIES 1964 TO 1968
($'000)

Industry and year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1968—									
Metal mining—									
Gold	..	290	(*b*)	..	13,112	..	(*b*)	..	18,434
Silver-lead-zinc	58,042	..	84,984	(*b*)	(*b*)	(*b*)	484	..	146,858
Copper-gold	5,484	(*c*)−2		14	(*b*)	(*b*)	(*b*)	..	24,731
Tin	2,970	139	2,342	..	1,458	6,044	29	..	12,982
Mineral sands	18,168	..	6,668	..	3,782	..	..	..	28,618
Iron	..	..	..	(*b*)	99,151	(*b*)	3,657	..	115,471
Other metal	155	..	(*b*)	(*b*)	(*b*)	(*b*)	7,005	..	38,658
Total, metal mining	*84,819*	*426*	*112,709*	*12,132*	*126,004*	*29,626*	*20,034*	..	*385,751*
Fuel mining—									
Black coal	108,496	147	(*d*)33,017	2,467	(*d*)34,548	293	..	..	(*d*)178,969
Brown coal	..	19,568	..	..	..	..	..	..	19,568
Total, fuel mining	*108,496*	*19,715*	*33,017*	*2,467*	*34,548*	*293*	..	..	*198,537*
Non-metal (excluding fuel) mining—									
Clays(*e*)	3,444	3,069	276	2,042	(*b*)	98	..	..	7,907
Gypsum	107	131	..		(*b*)	..	..	..	1,889
Limestone	2,388	(*b*)	1,557	2,181	(*b*)	373	..	..	8,863
Salt	..	(*b*)	(*b*)	6,916	(*b*)	..	..	..	2,717
Other non-metal mining(*e*)	3,200	(*b*)	(*b*)		(*b*)	25	..	..	9,358
Total, non-metal mining	*9,139*	*5,754*	*2,555*	*11,139*	*1,652*	*495*	..	..	*30,735*
Total, all mining	*202,455*	*25,895*	*148,281*	*25,739*	*162,205*	*30,414*	*20,034*	..	*615,022*
Construction material quarrying(*e*)	37,041	21,979	3,769	10,546	5,563	2,214	602	914	82,629
Total all mining and quarrying, 1968	**239,496**	**47,875**	**152,050**	**36,285**	**167,768**	**32,628**	**20,635**	**914**	**697,652**
1967	222,817	47,382	107,440	34,595	110,267	25,197	16,416	834	564,947
1966	215,902	43,438	115,370	36,250	63,097	25,828	11,070	772	511,728
1965	225,771	39,958	79,742	33,979	35,192	20,309	5,715	663	441,330
1964	195,980	37,056	74,406	34,068	32,162	18,174	5,507	493	397,846

(*a*) Local value (i.e. value of output at mine or quarry) *less* cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (*b*) Not available for publication, included in total for Australia. (*c*) Cost of materials used, etc., exceeds local value of production. (*d*) Includes other fuel mining. (*e*) Incomplete. *See* Coverage, page 920.

Quantities of principal minerals produced

In the preparation of Australian mineral commodity production statistics the quantities and values of individual minerals produced are recorded in terms of the form in which they are dispatched from the locality of each mine. For example, in the case of metalliferous mines, the output is recorded as ore if no treatment is undertaken at the mine, or as a concentrate if ore-dressing operations are carried out in associated works in the locality of the mine. In addition to the basic output data, which are set out in the following tables through to page 929, the contents of metallic minerals are shown in the tables on page 930. Whenever practicable, contents (based on assay) of metallic minerals are shown for each metal which is a 'pay metal' or a 'refiners' prize' when present in the particular mineral. In general, other metallic contents which are not recovered are excluded. Individual mineral products are arranged in four groups corresponding to the major groups of the industry, namely metal mining, fuel mining, non-metal mining (excluding fuel), and construction material quarrying, referred to on page 921. Particulars relating to uranium bearing minerals are excluded.

The following tables show particulars of the quantity of the principal minerals produced during 1968 and earlier years.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED STATES AND NORTHERN TERRITORY, 1968

Mineral		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust*
METALLIC MINERALS									
Antimony ore and concentrate	tons	241	..	3	..	..	..	..	244
Bauxite	'000 tons	12	..	3,257	..	1,608	..	..	4,877
Beryllium ore	tons	2	..	..	..	13	..	..	15
Bismuth concentrate	,,	..	..	..	..	..	..	1,553	1,553
Copper ore(*a*)	,,	1,737	162	29,894	510	690	5,056	1,153	39,202
Copper concentrate(*b*)	,,	38,253	..	324,669	..	4,276	54,187	30,715	452,100
Gold(*c*)	oz	95	12,417	40,267	1	765,417	115	89,974	908,286
Ilmenite concentrate(*d*)	tons	11,737	..	4,532	..	536,839	..	..	553,108
Iron ore and concentrate(*e*)	'000 tons	..	..	..	5,680	18,828	869	827	26,204
Lead ore(*f*)	tons	8,204	..	42,757	500	..	..	..	51,461
Lead concentrate	,,	321,824	..	264,174	..	418	13,352	1,941	601,709
Lead-copper concentrate	,,	..	..	..	..	..	12,558	..	12,558
Lead-zinc concentrate	,,	5,373	..	..	..	..	..	..	5,373
Manganese ore	,,	..	..	..	24	150,338	..	581,715	732,077
Monazite concentrate	,,	529	..	270	..	1,256	..	..	2,055
Nickel concentrate	,,	..	..	..	..	36,880	..	..	36,880
Pyrite concentrate	,,	..	..	2,045	87,837	32.879	42,504	..	165,265
Rutile concentrate	,,	192,928	..	93,844	..	845	..	..	287,617
Tantalite-columbite concentrate	lb	..	..	..	..	238,134	..	..	238,134
Tin concentrates(*g*)	tons	2,472	92	1,760	..	895	6,030	48	11,297
Tungsten concentrates—									
Scheelite concentrate	,,	..	..	..	..	..	1,465	..	1,465
Wolfram concentrate	,,	1	..	37	..	1	484	36	559
Xenotime	,,	..	..	..	..	18	..	..	18
Zinc ore	,,	..	..	..	2,700	..	..	..	2,700
Zinc concentrate	,,	504,244	..	128 047	..	..	82,458	3,562	718,311
Zircon concentrate	,,	186,292	..	79,807	..	28,096	..	..	294,195
FUEL MINERALS									
Coal, black—									
Semi-anthracite	'000 tons	..	..	29	..	..	2	..	31
Bituminous	,,	30,349	26	6,201	..	..	89	..	36,665
Sub-bituminous	,,	..	..	322	2,078	1,087	..	..	3,488
Total coal, black	,,	*30,349*	*26*	*6,552*	*2,078*	*1,087*	*91*	..	*40,183*
Coal, brown (lignite)	,,	..	22,971	..	..	..	..	..	22,971
Natural gas	'000 cu ft	..	..	122,883	..	92,922	..	..	215,805
Crude oil	'000 barrels	..	..	3,100	..	10,777	..	..	13,877
NON-METALLIC (EXCLUDING FUEL) MINERALS									
Asbestos	short tons	822	..	..	..	75	..	..	897
Barite	tons	5,660	..	..	32,839	656	..	..	39,155
Clays—									
Brick clay and shale	'000 tons	3,058	1,580	492	473	664	156	..	6,422
Other(*h*)	,,	477	447	150	116	145	62	..	1 396
Diatomite	tons	1,493	5,188	..	..	44	..	..	6,725
Dolomite(*i*)	,,	7,822	..	7,743	298,632	..	2,534	..	316,731
Felspar	,,	1,893	..	..	2,476	469	..	..	4.838
Gypsum	,,	32,323	77,472	..	630,020	103,929	..	..	843,724
Limestone(*i*)	'000 tons	2,686	1,820	1,179	1,558	733	496	..	5,470
Magnesite	tons	22,661	..	319	166	..	..	..	23,146
Phosphate rock	,,	..	..	..	5,744	..	..	..	5,744
Salt, crude	,,	..	(*j*)	(*j*)	610,827	(*j*)	..	..	899,704
Silica (glass, chemical, etc.)(*h*)	,,	282,221	..	159,776	66,024	20,560	14,099	..	542,680
Talc	,,	2,587	..	..	(*j*)	(*j*)	..	..	38,280
CONSTRUCTION MATERIALS(*h*)								(*k*)	
Sand	'000 tons	6,612	4,995	n.a.	2,077	n.a.	276	446	(*l*)14,406
River gravel	,,	2,995	3,196	n.a.	345	n.a.	1,595	209	(*l*)8,340
Dimension stone	,,	41	7	5	42	(*i*)	4	(*j*)	275
Crushed and broken stone	,,	9,197	17,297	3,855	8,874	3,660	1,187	308	44,375
Other (decomposed rock, etc.)	,	23,348	1,970	564	n.a.	(*j*)	167	(*j*)	(*l*)26,581

(*a*) Includes cupreous ore for fertiliser. (*b*) Includes copper precipitate. (*c*) Bullion, alluvial, retorted gold, etc. (*d*) Includes leucoxene. (*e*) Iron oxide for metal extraction. (*f*) Includes lead-silver-zinc ore. (*g*) Includes tin-copper concentrate. (*h*) Incomplete, *see* Coverage, page 920. (*i*) Excludes quantities used directly as building or road material. (*j*) Not available for publication. (*k*) Includes Australian Capital Territory. (*l*) Incomplete, *see* individual States.

NOTE. Particulars of the production of uranium concentrate are not available for publication.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA, 1964 TO 1968

Mineral		*1964*	*1965*	*1966*	*1967*	*1968*
METALLIC MINERALS						
Antimony ore and concentrate	tons	414	55	150	152	244
Bauxite	'000 tons	784	1,168	1,798	4,176	4,877
Beryllium ore	tons	111	38	52	55	15
Bismuth concentrate	,,	. .	. .	1	106	1,553
Copper ore(*a*)	,,	59,686	41,325	53,463	31,453	39,202
Copper concentrate(*b*)	,,	427,522	389,697	478,710	392,679	452,100
Gold(*c*)	oz	1,150,079	1,118,503	1,078,587	997,793	908,286
Ilmenite concentrate(*d*)	tons	304,284	441,414	513,767	544,912	553,108
Iron ore and concentrate(*e*)	'000 tons	5,669	6,695	10,893	17,036	26,204
Lead ore(*f*)	tons	25,174	24,906	19,221	18,224	51,461
Lead concentrate	,,	536,213	503,356	515,573	537,193	601,709
Lead-copper concentrate	,,	10,214	10,424	12,083	12,227	12,558
Lead-zinc concentrate	,,	. .	. .	14,254	14,685	5,373
Manganese ore	,,	61,109	100,369	312,540	559,967	732,077
Monazite concentrate	,,	1,981	2,305	1,984	2,313	2,055
Nickel concentrate	,,	. .	. .	. .	15,753	36,880
Pyrite concentrate	,,	220,078	204,011	245,998	252,748	165,265
Rutile concentrate	,,	182,371	217,330	243,858	265,514	287,617
Tantalite-columbite concentrate	lb	33,600	25,581	10,550	79,587	238,134
Tin concentrates(*g*)	tons	5,314	6,237	7,604	8,557	11,297
Tungsten concentrates—						
Scheelite concentrate	,,	1,020	1,150	1,308	1,202	1,465
Wolfram concentrate	,,	380	487	498	448	559
Xenotime	,,	. .	. .	. .	18	18
Zinc ore	,,	. .	. .	. .	. .	2,700
Zinc concentrate	,,	588,840	604,211	638,788	702,792	718,311
Zircon concentrate	,,	184,082	226,863	235,649	283,682	294,195
FUEL MINERALS						
Coal, black—						
Semi-anthracite	'000 tons	79	70	45	38	31
Bituminous	,,	24,477	28,228	30,045	31,299	36,665
Sub-bituminous	,,	2,845	3,140	3,243	3,370	3,488
Total coal, black	,,	*27,401*	*31,439*	*33,334*	*34,707*	*40,183*
Coal, brown (lignite)	,,	19,035	20,659	21,783	23,384	22,971
Natural gas	'000 cu ft	106,490	143,402	143,478	152,360	215,805
Natural gas condensate	barrels	245	122	121	. .	. .
Crude oil	'000 barrels	1,244	2,622	3,390	7,600	13,877
NON-METALLIC (EXCLUDING FUEL) MINERALS						
Asbestos	short tons	13,654	11,566	13,468	600	897
Barite	tons	12,302	11,976	13,724	15,666	39,155
Clays—						
Brick clay and shale	'000 tons	5,163	5,056	5,187	5,696	6,422
Other(*h*)	,,	1,039	1,007	1,052	961	1,396
Diatomite	tons	8,732	7,063	7,592	11,103	6,725
Dolomite(*i*)	,,	236,068	258,661	256,008	290,659	316,731
Felspar	,,	9,021	8,726	7,259	4,450	4,838
Gypsum	,,	795,003	833,521	801,552	914,084	843,724
Limestone(*i*)	'000 tons	7,223	7,516	7,730	8,355	8,470
Magnesite	tons	31,250	26,362	19,556	23,653	23,146
Phosphate rock	,,	5,689	4,519	5,715	11,770	5,744
Salt, crude	,,	545,491	654,533	644,817	703,157	899,704
Silica (glass, chemical, etc.)(*h*)	,,	322,269	320,937	347,123	443,555	542,680
Talc	,,	15,695	19,719	17,327	17,779	38,280
CONSTRUCTION MATERIALS(*h*)						
Sand	'000 tons	10,757	11,444	10,666	11,149	14,406
River gravel	,,	8,117	7,760	8,549	9,048	8,340
Dimension stone	,,	590	467	241	286	275
Crushed and broken stone	,,	34,175	39,733	46,796	46,268	44,375
Other (decomposed rock, etc.)	,,	23,460	21,363	22,216	25,202	26,581

(*a*) Includes cupreous ore for fertiliser. (*b*) Includes copper precipitate. (*c*) Bullion, alluvial, retorted gold, etc. (*d*) Includes leucoxene. (*e*) Iron oxide for metal extraction. (*f*) Includes lead-silver-zinc ore. (*g*) Includes tin-copper concentrate. (*h*) Incomplete, owing to difficulties of coverage. *See* Coverage, page 920. (*i*) Excludes quantities used directly as building or road material.

NOTE. **Particulars of production of uranium concentrate are not available for publication.**

Contents of metallic minerals produced

The following tables show the contents of metallic minerals produced in 1968 and earlier years.

CONTENTS OF METALLIC MINERALS PRODUCED STATES AND NORTHERN TERRITORY, 1968

Content of metallic minerals produced		*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Aust.*
Alumina (Al_2O_3)	'000 tons	5	..	1,905	..	724	..	..	2,633
Antimony	tons	842	..	..	..	..	..	..	842
Beryllium oxide (BeO)	units(*a*)	25	..	..	..	153	..	..	178
Bismuth	lb	..	..	..	..	..	..	403,200	403,200
Cadmium	tons	1,007	..	261	..	..	74	17	1,359
Chromic oxide (Cr_2O_3)	,,	..	27	..	..	..	..	..	27
Cobalt	,,	113	..	..	..	121	1	..	235
Copper	,,	12,279	5	69,447	80	1,591	16,601	7,903	107,906
Gold	fine oz	8,668	11,069	82,939	38	515,949	36,509	126,610	781,782
Iron(*b*)	'000 tons	..	..	..	3,643	12,157	601	518	16,920
Lead	tons	249,488	..	116,679	43	311	14,910	1,240	382,671
Manganese(*c*)	,,	5,334	..	..	..	69,398	246	270,121	345,099
Manganese dioxide (MnO_2)(*d*)	,,	..	..	..	16	..	..	118	134
Molybdenum disulphide (MoS_2)	lb	124	..	19,040	..	..	..	..	19,164
Monazite	tons	476	..	243	..	1,130	..	..	1,849
Nickel	,,	..	..	..	..	4,603	..	..	4,603
Osmiridium	oz	..	..	..	..	..	12	..	12
Silver	'000 fine oz	9,521	..	9,624	1	187	1,748	312	21,394
Sulphur(*e*)	tons	203,231	..	41,961	35,837	14,433	53,071	1,457	349,990
Tantalite-columbite (Ta_2O_5 + Nb_2O_5)	lb	..	..	..	..	56,179	..	..	56,179
Tin	tons	1,448	64	1,247	..	624	3,126	26	6,537
Titanium dioxide (TiO_2)	,,	190,491	..	92,224	..	296,005	..	..	578,720
Tungstic oxide (WO_3)	units(*a*)	43	..	2,600	..	34	140,107	1,768	144,552
Xenotime	lb	..	..	..	..	9,500	..	..	9,500
Zinc	tons	280,219	..	84,090	810	..	48,739	1,864	415,722
Zircon	,,	184,431	..	78,986	..	27,502	..	..	290,919

(*a*) 1 unit = 22.4 lb. (*b*) Excludes iron content of iron oxide not intended for metal extraction. (*c*) Content of metallurgical grade manganese ore and zinc concentrate. (*d*) Content of manganese ore of other than metallurgical grade. (*e*) Sulphur content of pyrite and other minerals from which sulphur is recovered.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

CONTENTS OF METALLIC MINERALS PRODUCED: AUSTRALIA, 1964 TO 1968

Content of metallic minerals produced		*1964*	*1965*	*1966*	*1967*	*1968*
Alumina (Al_2O_3)	'000 tons	396	613	939	2,258	2,633
Antimony	tons	1,116	944	971	930	842
Beryllium oxide (BeO)	units(*a*)	1,279	457	637	675	178
Bismuth	lb	..	..	717	25,536	403,200
Cadmium	tons	1,154	1,155	1,212	1,324	1,359
Chromic oxide (Cr_2O_3)	,,	32	10	..	44	27
Cobalt	,,	73	90	84	146	235
Copper	,,	104,050	90,388	109,537	90,361	107,906
Gold	fine oz	963,834	877,643	916,985	805,336	781,782
Iron(*b*)	'000 tons	3,655	4,297	6,956	10,831	16,920
Lead	tons	374,856	362,137	364,898	375,779	382,671
Manganese(*c*)	,,	36,564	55,280	151,401	264,660	345,099
Manganese dioxide (MnO_2)(*d*)	,,	1,033	1,652	4,091	228	134
Molybdenum disulphide (MoS_2)	lb	..	41,911	5,549	..	19,164
Monazite	tons	1,848	2,165	1,836	2,163	1,849
Nickel	,,	..	..	..	2,061	4,603
Osmiridium	oz	..	..	..	..	12
Silver	'000 fine oz	18,427	17,281	18,888	19,842	21,394
Sulphur(*e*)	tons	346,502	345,554	371,567	392,371	349,990
Tantalite-columbite (Ta_2O_5 + Nb_2O_5)	lb	12,499	10,281	5,698	32,906	56,179
Tin	tons	3,642	3,849	4,807	5,586	6,537
Titanium dioxide (TiO_2)	,,	342,646	448,318	516,745	552,894	578,720
Tungstic oxide (WO_3)	units(*a*)	99,541	117,672	130,776	119,210	144,552
Xenotime	lb	..	..	..	9,475	9,500
Zinc	tons	344,600	349,231	369,341	400,527	415,722
Zircon	,,	182,174	224,654	232,903	280,324	290,919

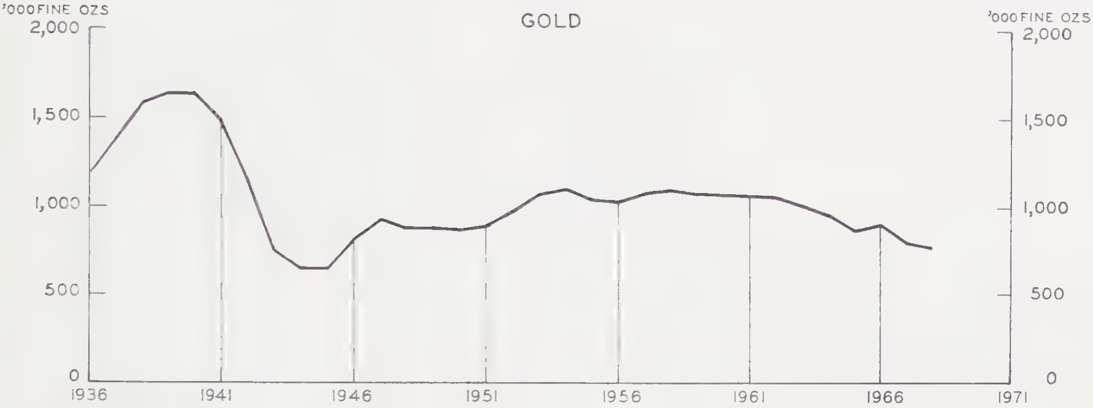
(*a*) 1 unit = 22.4 lb. (*b*) Iron oxide for metal extraction. (*c*) Content of metallurgical grade manganese ore and zinc concentrate. (*d*) Content of manganese ore of other than metallurgical grade. (*e*) Sulphur content of pyrite and other minerals from which sulphur is recovered.

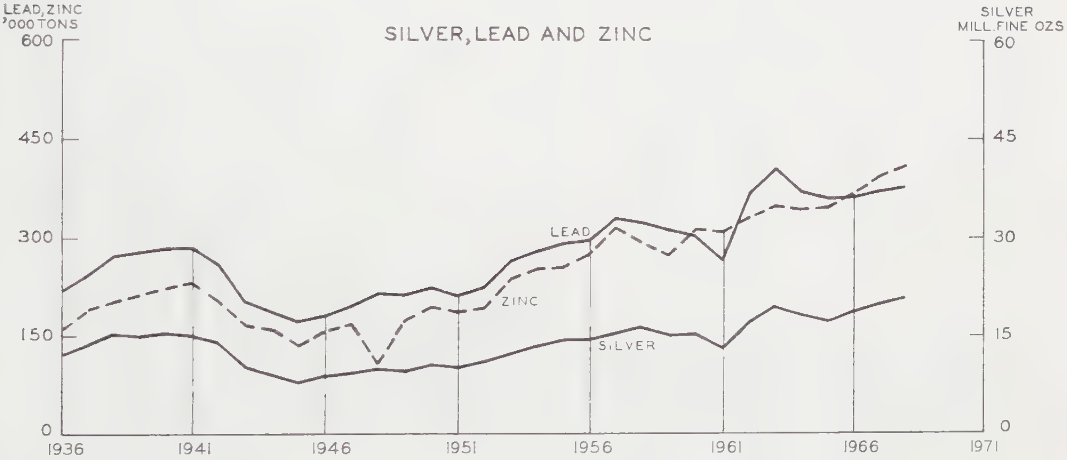
NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

MINE PRODUCTION OF PRINCIPAL METALS: AUSTRALIA

(METALLIC CONTENT OF MINERALS)

1936 TO 1968





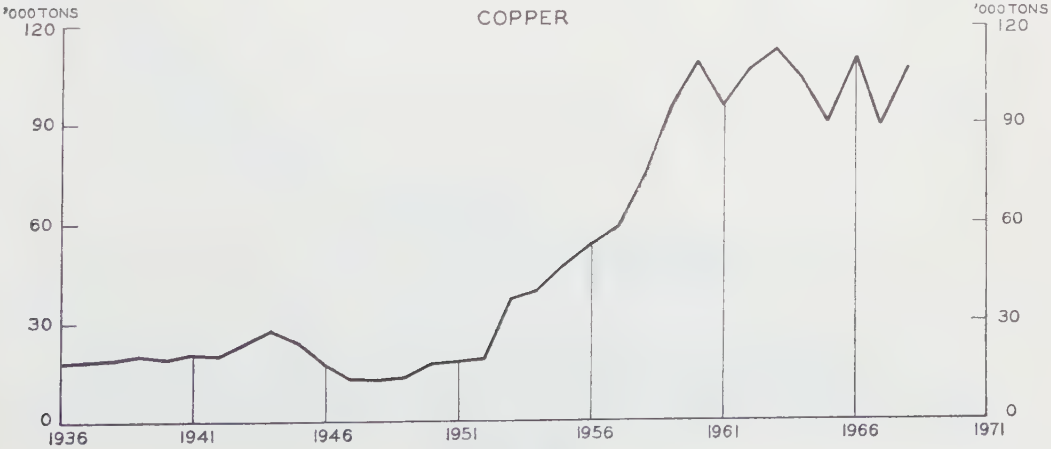
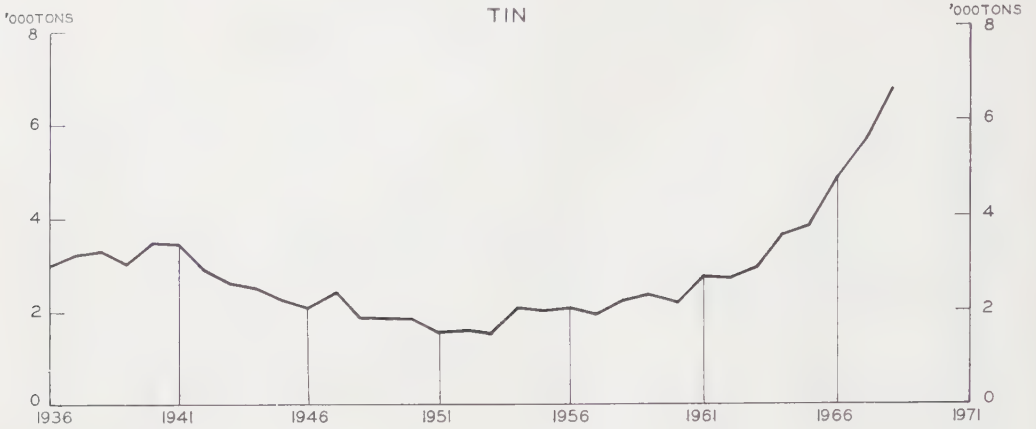


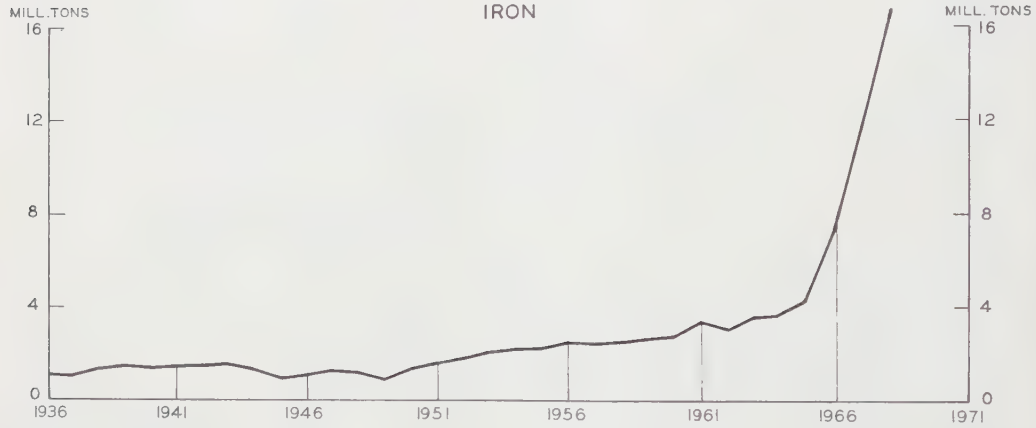
PLATE 48

MINE PRODUCTION OF PRINCIPAL METALS AND PRODUCTION OF COAL

(METALLIC CONTENT OF MINERALS)

AUSTRALIA, 1936 to 1968





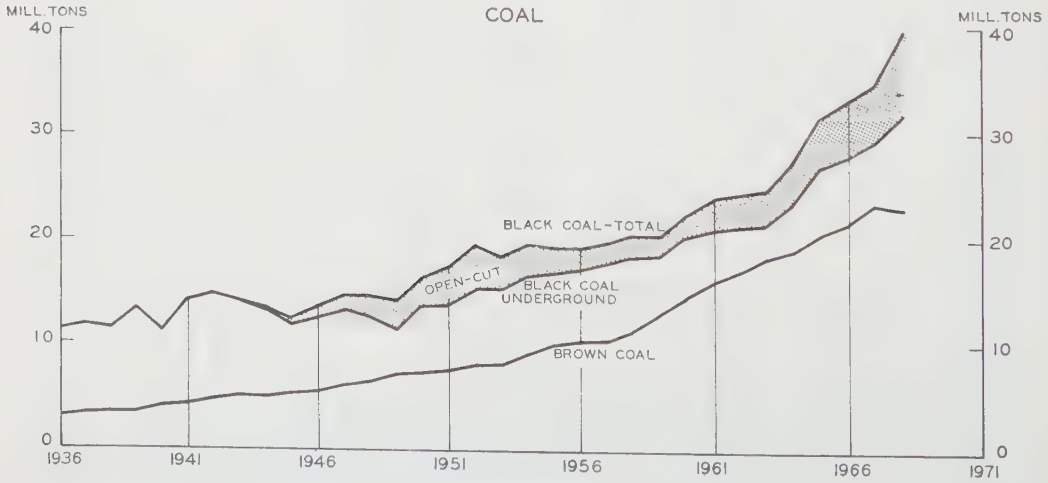


PLATE 49

Graphs showing details of the mine production of principal metals (metallic content) and coal from 1936 to 1968 are included on plates 48 and 49, pages 931 and 932.

Local value of minerals produced, 1964 to 1968

Particulars of the values of minerals (mine and quarry products) produced are shown in the following table. The values represent the selling value at the mine or quarry of minerals produced during the years concerned.

Due to the fact that the classification of individual mines to industry is on the basis of the principal mineral produced, the values in the table on page 926 for mining industry groups differ slightly in some cases from totals of the corresponding groups of mine products shown in the table below.

LOCAL VALUE OF MINERALS PRODUCED: AUSTRALIA, 1964 TO 1968
($'000)

Mineral	*1964*	*1965*	*1966*	*1967*	***1968***
Metallic minerals—					
Bauxite	3,064	4,600	(*a*)	(*a*)	**(*a*)**
Copper ore, concentrate, etc.	51,380	50,790	87,523	72,515	**92,396**
Gold ore, concentrate, other forms, etc.	26,666	25,619	26,371	24,456	**23,525**
Ilmenite concentrate	2,208	3,755	4,242	4,390	**3,746**
Iron ore	12,550	14,640	41,728	82,994	**131,482**
Lead and lead-silver ore and concentrate, lead-copper concentrate, etc.	80,806	87,947	76,831	73,654	**89,705**
Manganese ore	750	808	3,462	8,007	**8,358**
Nickel concentrate	. .	. .	. .	(*a*)	**(*a*)**
Pyrite concentrate	3,054	3,040	(*a*)	(*a*)	**1,842**
Rutile concentrate	12,080	15,038	17,088	19,615	**21,528**
Tin concentrates	10,224	12,237	14,332	15,011	**16,691**
Tungsten concentrates	1,420	2,692	4,469	4,509	**5,514**
Zinc ore and concentrate	35,456	36,818	32,890	29,354	**30,398**
Zircon concentrate	3,462	6,136	8,255	10,937	**10,967**
Other metallic minerals	522	548	610	1,251	**3,354**
Total, metallic minerals	*243,642*	*264,668*	*327,633*	*370,892*	***467,347***
Fuel minerals—					
Coal, black	128,038	143,703	151,380	160,099	**188,785**
Coal, brown	17,304	18,436	20,064	20,686	**21,555**
Other fuel minerals	2,164	5,344	9,229	21,286	**39,307**
Total, fuel minerals	*147,506*	*167,483*	*180,675*	*202,071*	***249,649***
Non-metallic minerals(*b*)	27,814	29,244	31,921	31,946	**36,928**
Construction materials(*b*)	73,244	80,183	83,449	91,789	**96,812**
Total, all minerals and construction materials	**492,208**	**541,578**	**623,678**	**696,701**	**850,736**

(*a*) Not available for publication. (*b*) Incomplete owing to difficulties of coverage. *See* Coverage, page 920.

NOTE. Particulars of the value of uranium concentrate produced are not available for publication and have been excluded from the table above.

Overseas participation in Australian mining industry

Introduction

Any attempt to provide statistical information on the extent of overseas participation in local industry involves difficult problems of statistical concept and measurement. Broadly, there are two ways in which overseas participation may be measured. One is to examine the financial accounts of Australian companies and compare the value of *assets* of companies in which there is significant overseas investment with those of other Australian companies. The other is to examine the *operations* (as expressed in terms of production, wages and salaries, output, etc.) of establishments of Australian companies in which there is significant overseas investment and compare their operations with those of establishments of other Australian companies. The second method has been adopted for a series of studies in overseas participation in the Australian mining industry.

Scope of the statistics

The statistics relate to the operations of establishments employing four or more persons in the mining and quarrying industry as defined for the annual mining and quarrying census except for establishments engaged in construction material quarrying and clay mining, which are excluded.

Classification of companies

The extent of overseas participation in the mining industry is measured by the operations of the establishments of companies in which there is direct investment from overseas, as determined by the annual survey of overseas investments. These are defined as follows.

(i) Companies in Australia in which at least 50 per cent of the ordinary shares (or voting stock) is held by individual shareholders or companies resident in one overseas country, or where 25 per cent or more of the ordinary shares (or voting stock) is held by one company, or a group of companies, incorporated in one overseas country.

(ii) Branches of companies incorporated overseas and registered in Australia as foreign companies.

(iii) Wholly and partly owned subsidiaries and sub-subsidiaries, etc., of companies included in (i) and (ii) above.

Investment in ordinary shares or voting stock of Australian companies, including companies in which there is direct investment from overseas, where the proportion of shares held in a single country falls below the percentages specified in (i) above is defined as portfolio investment. Because of the difficulties encountered in determining the proportion of ordinary shares or voting stock of individual Australian companies held by portfolio investors overseas, *the figures for overseas participation in the mining industry exclude participation by way of portfolio investment.*

Further information available

In the following tables the degree of overseas participation is expressed in terms of net value of production only. Further details in terms of the value of power, fuel and materials used, local value of production, value of additions and replacements to fixed assets, salaries and wages paid, and average number of persons employed, as well as the value of production, may be found in the mimeographed bulletin *Overseas Participation in Australian Mining Industry*, 1968. The terms 'net . . .' and 'local value of production' are defined in Chapter 30 Miscellaneous.

OVERSEAS OWNERSHIP AND CONTROL

In analysing the extent of overseas participation in local industry it is usual to distinguish between two aspects, overseas ownership and overseas control.

Overseas ownership

Statistics which give a general indication of the degree of overseas ownership in terms of the net value of production of Australian mining establishments are presented in the two following tables. In the compilation of these statistics the data for an establishment of a company in which there is no direct investment from overseas are allocated wholly to Australian ownership. The data relating to an establishment of a company in which there is direct investment from overseas are apportioned to overseas and Australian ownership according to the proportion of the ordinary shares (or voting stock) of the company that is held by the direct overseas investors.

However, an exception has been made to the strict application of the definition of direct overseas investment in the measurement of overseas ownership of the Australian mining industry. This exception is designed to take account of a small number of important cases of portfolio investment where overseas companies participated in a consortium of companies which made the initial decision to develop a major mining project. The participation of these companies in the initial decision for the development of the mining project implies a kind of participation different from that normally associated with portfolio investment and more akin to direct investment. Special arrangements have been made therefore, to include in the measurement of overseas ownership, investment by overseas companies whose participation is represented by 10 per cent or more of the ordinary shares of such projects. This participation is not taken into account in statistics of overseas control. This change has had a minor effect on statistics of overseas ownership of the Australian mining industry for 1966 and earlier years.

MINING(*a*): NET VALUE OF PRODUCTION APPORTIONED TO AUSTRALIAN AND DIRECT OVERSEAS OWNERSHIP, BY INDUSTRY, 1966 TO 1968

Industry and ownership	*Value ($'000)*			*Proportion Australian and overseas (per cent)*		
	1966	*1967*	*1968*	*1966*	*1967*	*1968*
Metal mining—						
Australian(*b*)	144,588	149,095	187,939	53.7	50.0	49.0
Overseas	124,622	149,013	195,907	46.3	50.0	51.0
Fuel mining—						
Australian(*b*)	109,844	118,253	134,156	76.9	74.4	67.7
Overseas	32,918	40,593	63,966	23.1	25.6	32.3
Non-metal (excluding fuel) mining—						
Australian(*b*)	10,830	10,870	11,767	81.1	80.4	80.0
Overseas	2,521	2,658	2,938	18.9	19.6	20.0
Total mining—						
Australian(*b*)	**265,262**	**278,218**	**333,863**	**62.4**	**59.1**	**56.0**
Overseas	**160,061**	**192,264**	**262,811**	**37.6**	**40.9**	**44.0**
Grand total	**425,323**	**470,483**	**596,674**	**100.0**	**100.0**	**100.0**

(*a*) Excludes construction material quarrying and clay mining. (*b*) Includes ownership by overseas portfolio investors.

MINING(*a*): NET VALUE OF PRODUCTION APPORTIONED TO DIRECT OVERSEAS OWNERSHIP(*b*), BY COUNTRY AND BY PROPORTION OF DIRECT OVERSEAS EQUITY, 1966 TO 1968

Country, and proportion of direct overseas equity	*Value ($'000)*			*Proportion(c) (per cent)*		
	1966	*1967*	*1968*	*1966*	*1967*	*1968*
Country—						
United Kingdom	79,891	90,095	102,957	18.7	19.2	17.2
United States of America	64,613	87,256	142,806	15.2	18.5	23.9
Other	15,557	14,913	17,048	3.7	3.2	2.9
Proportion of direct overseas equity—						
25 per cent but less than 50 per cent	3,094	7,527	8,303	0.7	1.6	1.4
50 per cent but less than 75 per cent	47,901	37,642	56,836	11.3	8.0	9.5
75 per cent and over	109,066	147,095	197,672	25.6	31.3	33.1
Total apportioned to direct overseas ownership	**160,061**	**192,264**	**262,811**	**37.6**	**40.9**	**44.0**

(*a*) Excludes construction material quarrying and clay mining. (*b*) Excludes ownership by overseas portfolio investors. (*c*) Of total net value of mining production.

Overseas control

The statistics in the following tables provide an indication of the relative importance of mining establishments of companies in which there is direct overseas investment. The concept of direct overseas investment is directly related to the concept of overseas control, and the statistics in these tables provide a measure of the net value of production of mining establishments of companies which can be regarded as subject to a degree of overseas control. The statistics have been derived by allocating data relating to each mining establishment wholly to either one or the other of the following categories: (i) establishments of direct overseas investment companies; (ii) other establishments.

The classification of establishments of companies in which 50 per cent of the voting stock is held in one overseas country (or 25 per cent by one overseas company) as subject to a degree of overseas control is, of course, based on a statistical convention. Such a convention is needed because of the lack of specific information as to the arrangements for managerial control of individual companies. The convention adopted for this study (including the actual percentages used) is the one suggested by the International Monetary Fund for use in the absence of other information. There are avenues of control other than through direct equity interest, e.g. through franchise or patent rights, marketing arrangements, financial commitments, etc. Such arrangements, of course, also typically exist between companies in which there is direct investment and their overseas parent companies and associated companies. Further, ownership of less than 25 per cent of voting stock may, in some cases, be sufficient to achieve effective control of a company's activities, just as in other cases ownership of more than 25 per cent of voting stock may not constitute control. In addition, the relationship between overseas parent companies and their Australian branches and subsidiaries covered by the statistics in the following tables can be one of *potential* rather than *actual* control.

A special problem does exist, however, in the strict application of the definition of direct overseas investment described above to the measurement of overseas control. This occurs where a single overseas company has an equity interest in an Australian company which is 25 per cent or more but less than 50 per cent. In such cases, a single Australian company may have an equity interest which is greater than the equity interest of the direct overseas investment company. To overcome this problem, an examination has been made of all companies engaged in mining in which the direct overseas equity is 25 per cent or more but less than 50 per cent. Where an Australian company holds a greater proportion of the equity than the direct overseas investment company the company is not regarded as subject to a degree of overseas control and is classified to 'other establishments'. However, this departure from the strict application of the definition of direct overseas investment to the measurement of overseas control does not affect the statistics for 1966 and earlier years.

MINING(*a*): NET VALUE OF PRODUCTION ATTRIBUTED TO DIRECT OVERSEAS AND AUSTRALIAN CONTROL, BY INDUSTRY, 1966 TO 1968

	Value ($'000)			*Proportion (per cent)*		
Industry and category of control	*1966*	*1967*	*1968*	*1966*	*1967*	*1968*
Metal mining—						
Overseas	167,191	193,531	264,008	62.1	64.9	68.8
Australian	102,019	104,577	119,839	37.9	35.1	31.2
Fuel mining—						
Overseas	40,927	51,703	78,735	28.7	32.5	39.7
Australian	101,835	107,143	119,387	71.3	67.5	60.3
Non-metal (excluding fuel) mining—						
Overseas	3,669	3,862	4,205	27.5	28.5	28.6
Australian	9,681	9,667	10,501	72.5	71.5	71.4
Total mining—						
Overseas	**211,788**	**249,096**	**346,947**	**49.8**	**52.9**	**58.1**
Australian	**213,535**	**221,387**	**249,727**	**50.2**	**47.1**	**41.9**
Grand total	**425,323**	**470,483**	**596,674**	**100.0**	**100.0**	**100.0**

(*a*) Excludes construction material quarrying and clay mining.

MINING(*a*): NET VALUE OF PRODUCTION ATTRIBUTED TO DIRECT OVERSEAS CONTROL, BY PROPORTION OF DIRECT OVERSEAS EQUITY, 1966 TO 1968

	Value ($'000)			*Proportion(b) (per cent)*		
Proportion of direct overseas equity	*1966*	*1967*	*1968*	*1966*	*1967*	*1968*
25 per cent but less than 50 per cent	7,948	17,492	19,217	1.9	3.7	3.2
50 per cent but less than 75 per cent	91,913	72,851	109,685	21.6	15.5	18.4
75 per cent and over	111,927	158,753	218,045	26.3	33.7	36.5
Total attributed to overseas control	**211,788**	**249,096**	**346,947**	**49.8**	**52.9**	**58.1**

(*a*) Excludes construction material quarrying and clay mining. (*b*) Of total net value of mining production.

Mineral exploration (other than for petroleum)

Definition

Mineral exploration (other than for petroleum) consists of the search for, and/or appraisal of, new ore occurrences and known deposits of minerals (including extensions to deposits being worked) by geological, geophysical, geochemical, and other methods (including drilling). Exploration for water is excluded. The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities (which include the construction of drives, shafts, winzes, etc.) in underground mines and the preparation of quarrying sites for open-cut extraction (including overburden removal) carried out primarily for the purpose of commencing or extending mining and quarrying operations. Mine development activities (including mines under development) are included in the scope of the annual census of mining and quarrying.

Sources of statistics

The statistics of exploration for minerals *other than petroleum* are derived from the annual mineral exploration census (excluding petroleum exploration), which is carried out by this Bureau in association with some State Mines Departments.

Scope of mineral exploration census

The scope of the census comprises the following activities.

(*a*) *Private exploration on production leases*—relates to exploration carried out *on the production lease* by privately operated mines currently producing or under development for production of minerals other than petroleum. This also includes particulars of exploration within their production leases by business undertakings operated by State government authorities. Mines included in this section of the mineral exploration census are practically the same as those in the annual census of mining and quarrying (*see* Statistical Bulletin *Mining and Quarrying*, No. 17, 1968 for further details) with the exception of a limited number of itinerant prospectors and small mines for which information was not collected.

(*b*) *Private exploration on other licensed areas*—relates to exploration carried out on areas covered by exploration licences, authorities to enter, authorities to prospect, and similar licences and authorities issued by State Governments for exploration for minerals other than petroleum.

(*c*) *Other private exploration*—relates to exploration for minerals other than petroleum, which is not directly connected with areas under lease, licence, etc., including general surveys, aerial surveys, report writing, map preparation and other off-site activities not directly attributable to particular leases or licence areas.

(*d*) *Exploration by government*—relates to exploration for minerals other than petroleum carried out by—

(i) Commonwealth Government (Bureau of Mineral Resources, Geology and Geophysics, and Joint Coal Board), and
(ii) State Mines Departments.

Prior to 1968 the scope of the census was limited to private exploration on lease or licence areas held for production and exploration purposes, and all Government exploration. The scope was broadened for the 1968 census to include other private exploration activity as described in (*c*) above.

Expenditure, employment, footage drilled, etc., States and Northern Territory

The following table shows expenditure, employment and footage drilled, etc., on mineral exploration other than for petroleum in each State and the Northern Territory during the years 1965 to 1968.

MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM) STATES AND NORTHERN TERRITORY, 1965 TO 1968

EXPENDITURE(*a*)
($'000)

	1965	*1966*	*1967*	*1968(b)*
PRIVATE EXPLORATION				
New South Wales	4,460	4,872	4,594	5,620
Victoria	1,006	1,231	1,452	1,476
Queensland	4,372	8,340	11,657	13,343
South Australia	1,048	1,358	1,203	2,661
Western Australia	3,948	6,534	10,203	23,148
Tasmania	5,136	2,870	2,180	2,059
Northern Territory	2,389	2,909	3,532	4,156
Total	*22,360*	*28,115*	*34,822*	*52,463*
GOVERNMENT EXPLORATION				
Commonwealth(*c*)	1,525	1,923	2,803	3,529
State Mines Departments	1,697	1,649	1,768	2,329
Total	*3,223*	*3,572*	*4,571*	*5,858*
TOTAL EXPENDITURE				
On drilling	10,511	13,994	15,490	20,448
Other	15,071	17,693	23,903	37,873
Australia	**25,582**	**31,687**	**39,393**	**58,321**
Payments to contractors(*d*)	6,372	8,380	12,181	18,506

EMPLOYMENT(*e*)
('000 man-weeks worked)

	1965	*1966*	*1967*	*1968*
PRIVATE EXPLORATION				
New South Wales	17.0	19.2	22.5	20.9
Victoria	6.7	8.3	5.6	7.0
Queensland	26.0	35.6	27.2	33.3
South Australia	3.2	3.2	3.6	7.2
Western Australia	13.2	23.2	37.6	52.8
Tasmania	7.6	9.9	7.4	7.5
Northern Territory	10.0	8.8	8.8	11.0
Total	*83.6*	*108.2*	*112.6*	*139.6*
GOVERNMENT EXPLORATION				
Commonwealth(*c*)	8.3	11.1	14.2	11.9
State Mines Departments	15.8	15.0	15.9	13.7
Total	*24.1*	*26.1*	*30.1*	*25.5*
TOTAL				
By professional persons(*f*)	39.7	44.0	46.7	49.9
By non-professional persons(*g*)	68.0	90.3	96.0	115.2
Australia	**107.7**	**134.3**	**142.7**	**165.1**

For footnotes *see* next page.

MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM) STATES AND NORTHERN TERRITORY, 1965 TO 1968—*continued*

FOOTAGE DRILLED, SUNK OR DRIVEN
('000 ft)

	1965	*1966*	*1967*	*1968(b)*
PRIVATE EXPLORATION				
New South Wales	767	946	908	1,031
Victoria	172	179	182	128
Queensland	600	1,515	2,029	1,669
South Australia	123	183	161	227
Western Australia	343	640	907	1,768
Tasmania	188	169	152	149
Northern Territory	221	248	259	303
Total	*2,413*	*3,880*	*4,598*	*5,273*
GOVERNMENT EXPLORATION				
Commonwealth(*c*)	8	6	6	15
State Mines Departments	186	194	290	282
Total	*194*	*200*	*296*	*297*
TOTAL FOOTAGE DRILLED, SUNK OR DRIVEN(*h*)				
Drilled—core	1,139	1,645	1,727	2,003
non-core	1,400	2,375	3,138	3,445
Sunk or driven	68	59	30	122
Australia	**2,607**	**4,080**	**4,896**	**5,570**

(*a*) Expenditure whether charged as working expenses or capitalised. (*b*) Includes 'Other private exploration', not collected prior to 1968: *see* text. (*c*) Bureau of Mineral Resources and Joint Coal Board. (*d*) Included in expenditure shown above. Comprises amounts paid to drilling contractors, geological consultants, technical advisers, etc., for exploration services. (*e*) Operator and staff only (includes time spent on report writing and similar off-site activities associated with exploration); excludes contractors and their employees. (*f*) Geologists, geophysicists, engineers, etc., engaged on exploration work. (*g*) Drill operators, field hands, etc. (*h*) 'Sunk or driven' relates to shafts, winzes, etc., sunk and drives, adits, etc., driven.

Petroleum exploration

Source of statistics

These statistics were collected and compiled by the Bureau of Mineral Resources, Geology and Geophysics, Canberra. Statistical and other information relating to petroleum exploration is published by the Bureau of Mineral Resources in *The Petroleum Newsletter* (issued quarterly), *The Australian Mineral Industry—Annual Review* and *Expenditures on Petroleum Exploration and Development*, 1965 (B.M.R. Record No. 1966 (205)).

Scope

Petroleum exploration consists of the search for, and/or appraisal of, deposits of crude petroleum and/or gas by geological, geophysical, geochemical, and other means, including drilling. Included in the expenditure are the costs of drilling exploratory oil and/or gas wells and the testing of such wells. Also included are the cost of access roads, site construction, permits, licences and similar fees, relevant office buildings and furniture, transportation equipment, storage facilities, plant and equipment, and review work, where these are undertaken primarily for purposes of exploration for deposits of petroleum or natural gas. The cost of drilling developmental oil and/or gas wells and expenditure on production facilities and pipelines, and production costs, etc., are excluded.

Operations

The following tables show particulars of expenditure, and wells and footage drilled in petroleum exploration in recent years.

EXPENDITURE ON PETROLEUM EXPLORATION BY PRIVATE ENTERPRISE AND BY GOVERNMENTS: AUSTRALIA, 1965 TO 1968

($'000)

	1965	*1966*	*1967*	*1968*
PRIVATE SOURCES(*a*)				
Utilised in—				
New South Wales	3,640	1,706	1,284	1,126
Victoria	3,796	7,007	17,557	20,403
Queensland	14,883	13,670	5,116	5,392
South Australia	4,559	4,059	6,257	3,261
Western Australia	14,245	15,267	12,047	22,118
Tasmania	829	1,293	2,424	998
Northern Territory	6,246	6,367	6,978	6,222
Australia	*48,197*	*49,369*	*51,662*	*59,519*
GOVERNMENT SOURCES				
Payments under *Petroleum Search Subsidy Act* 1959–1969—				
Utilised in—				
New South Wales	633	724	516	474
Victoria	609	640	727	1,940
Queensland	3,818	2,194	1,767	1,419
South Australia	949	769	1,058	1,407
Western Australia	2,487	3,355	3,441	4,027
Tasmania	107	570	469	497
Northern Territory	1,157	1,365	1,657	1,448
Total subsidy payments, Australia	*9,759*	*9,617*	*9,635*	*11,212*
Utilised for—				
Geophysical	5,311	4,910	4,512	3,590
Drilling	4,448	4,707	5,123	7,622
Other Government sources—				
Commonwealth(*a*)	3,824	3,649	4,508	4,756
State Mines Departments	711	767	466	783
Total other sources, Australia	*4,535*	*4,416*	*4,974*	*5,539*
Total Government sources, Australia	*14,294*	*14,033*	*14,609*	*16,751*
TOTAL FUNDS, PRIVATE AND GOVERNMENT				
Australia	**62,491**	**63,402**	**66,271**	**76,270**

(*a*) Excludes payments under the *Petroleum Search Subsidy Act* 1959–1969.

WELLS AND FOOTAGE DRILLED IN PETROLEUM EXPLORATION STATES AND TERRITORIES, 1968(*a*)

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*Total*
Wells drilled(*b*)	No.	6	23	51	15	127	2	1	225
Average total depth of wells drilled	ft	4,765	8,626	5,501	6,167	5,832	7,166	12,843	6,135
Wells completed as potential oil producers	No.	..	5	6	..	53	..	..	64
Wells completed as potential gas producers	,,	..	9	6	6	1	..	..	22
Wells drilled or drilling over 10,000 feet	,,	1	5	1	1	5	1	1	15
Footage drilled—									
Completed wells	ft	19,197	162,946	252,013	99,527	406,189	14,332	4,863	959,067
Uncompleted holes(*c*)	,,	2,941	5,698	..	..	30,811	..	20,439	59,889
Total footage drilled	*ft*	*22,138*	*168,644*	*252,013*	*99,527*	*437,000*	*14,332*	*25,302*	*1,018,956*

(*a*) With the exception of 'average total depth of wells drilled', these data include particulars for developmental wells. (*b*) Number of holes which reached total depth during the year. (*c*) Uncompleted holes means wells suspended or drilling at 31 December 1968.

WELLS AND FOOTAGE DRILLED IN PETROLEUM EXPLORATION STATES AND TERRITORIES TO 31 DECEMBER 1968(*a*)

	Cumulative to 31 December 1966		*1967*		*1968*		*Cumulative to 31 December 1968*	
State or Territory	*Wells*	*Footage*	*Wells*	*Footage*	*Wells*	*Footage*	*Wells*	*Footage*
New South Wales	99	366,776	9	33,022	6	22,138	114	421,936
Victoria	181	475,983	10	81,321	23	168,644	214	725,948
Queensland	581	2,856,366	40	215,026	51	252,013	672	3,323,405
South Australia	141	408,739	15	112,923	15	99,527	171	621,189
Western Australia	195	918,892	194	569,038	127	437,000	516	1,924,930
Tasmania	23	28,324	5	11,881	2	14,332	30	54,537
Northern Territory	37	173,543	1	16,730	1	25,302	39	215,575
Total	..	..	*274*	*1,039,941*	*225*	*1,018,956*	..	..
Cumulative total	**1,257**	**5,228,623**	**1,531**	**6,268,564**	**1,756**	**7,287,520**	**1,756**	**7,287,520**

(*a*) Includes particulars for developmental wells.

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only part of the wider field of mineral technology. It is only in rare instances that minerals can be used directly in the form in which they are produced by mines, and, much more commonly, minerals must undergo considerable processing and treatment before their full utility and value can be realised. Examples of this processing and treatment are the smelting and refining of metals, the production of coke from coal, the refining of oil, and the treatment of non-metallic minerals as in the production of superphosphate and other chemicals and building materials like bricks and cement. The sectors of the economy which carry out this work are classified for statistical purposes to the manufacturing industry, and particulars relating to those activities which principally involve mineral processing and treatment—i.e. the treatment of non-metalliferous mine and quarry products, the manufacture of mineral oils and chemical fertilisers, the smelting, converting, refining and rolling of iron and steel, the extracting and refining of other metals, and the manufacture of alloys are given in Chapter 22 Manufacturing Industry, pages 714–34.

Principal products

The following table shows particulars of the production of certain important manufactured products of mineral origin during the years 1963–64 to 1967–68.

PRODUCTION OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN: AUSTRALIA, 1963-64 TO 1967-68

Commodity		*1963–64*	*1964–65*	*1965–66*	*1966–67*	*1967–68*
METALS(*a*)						
Non-ferrous—						
Alumina	tons	94,448	175,398	227,077	474,716	1,136,208
Refined aluminium	,,	58,937	85,497	87,222	92,826	87,737
Blister copper(*b*)	,,	92,809	57,880	98,529	77,888	74,967
Refined copper	,,	89,222	53,441	91,588	74,313	71,952
Lead bullion (for export)(*b*)	,,	78,304	63,827	81,709	84,690	101,695
Refined lead	,,	217,292	199,032	188,197	192,429	186,908
Refined zinc	,,	186,389	189,395	196,534	197,030	187,565
Refined tin	,,	2,959	2,931	3,524	3,224	3,955
Ferrous—						
Pig iron	'000 tons	3,772	3,936	4,380	4,893	5,209
Steel ingots	,,	4,773	5,131	5,561	6,057	6,298
Precious—						
Refined gold(*c*)	'000 f oz	911	871	774	726	655
Refined silver	,,	9,392	8,939	8,766	9,825	9,597
FUELS						
Coal products—						
Metallurgical coke	'000 tons	2,915	3,118	3,179	3,365	3,678
Brown coal briquettes	,,	1,883	1,893	1,883	1,820	1,745
Petroleum products—						
Motor spirit	mil. gal	1,358	1,482	1,524	1,763	1,897
Furnace fuel	'000 tons	4,686	4,869	5,340	5,759	6,206
Automotive distillate	,,	1,616	1,603	1,829	2,167	2,344
Industrial diesel fuel	,,	917	862	859	901	984
BUILDING MATERIALS						
Clay bricks	millions	1,238	1,353	1,360	1,358	1,404
Portland cement	'000 tons	3,320	3,746	3,688	3,661	3,805
Plaster of paris	,,	260	277	266	261	278
Plaster sheets	'000 sq yd	(*d*)15,922	29,937	29,917	30,601	32,809
CHEMICALS						
Sulphuric acid	'000 tons	1,447	1,610	1,752	1,991	1,892
Caustic soda	tons	64,230	68,879	75,229	91,009	98,190
Superphosphate	'000 tons	3,347	3,703	4,265	4,430	3,934

(*a*) Excludes secondary metal with exception of steel ingots. (*b*) Metallic content. (*c*) Newly-won gold of Australian origin. (*d*) Fibrous plaster sheets only.

Overseas trade

Exports and imports

Data of imports and exports of minerals and mineral products have been extracted from the official trade statistics compiled in the Commonwealth Bureau of Census and Statistics. Particulars of the quantities and values ($ f.o.b. port of shipment) of the principal minerals and mineral products exported from and imported into Australia during the years 1966 to 1968 are shown in the following table.

EXPORTS AND IMPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS AUSTRALIA, 1966 TO 1968

Item		*Quantity*			*Value ($'000 f.o.b.)*		
		1966	*1967*	*1968*	*1966*	*1967*	*1968*
		EXPORTS(*a*)					
Aluminium and aluminium base alloys(*b*)—							
Unworked shapes .	tons	16,210	10,501	5,577	7,050	4,926	2,745
Rolled, drawn and extruded shapes .	,,	6,470	4,835	3,985	3,851	3,304	2,449
Coal	,,	8,240,920	9,250,297	12,096,102	66,487	76,203	103,746
Copper—							
Ore and concentrate .	,,	47,455	44,830	36,494	9,603	9,526	8,657
Ingots, pigs (refined) .	,,	7,484	9,325	16,518	9,050	8,975	16,810
Rolled, drawn and extruded shapes . .	,,	11,907	7,043	7,164	12,896	8,102	8,381
Gold, refined . . .	fine oz	752,782	537,922	358,761	23,583	16,942	13,118
Iron and steel—							
Iron ore . . .	tons	2,011,979	9,017,084	16,134,492	16,863	75,372	139,816
Pig iron . . .	,,	95,590	149,587	241,869	3,870	6,169	8,925
Ingots, blooms and slabs	,,	347,841	398,635	470,527	19,806	23,719	27,474
Tinplate . . .	,,	87,945	56,252	42,576	10,651	7,452	5,359
Scrap . . .	,,	378,673	475,056	401,801	8,510	14,226	10,389
Lead—							
Ore and concentrate .	,,	109,134	124,106	121,122	19,386	23,166	23,636
Lead-silver bullion .	,,	79,534	100,394	107,325	21,905	26,901	34,457
Pig	,,	159,504	147,558	137,542	37,786	30,282	28,419
Opals		..	..	..	7,652	8,635	10,653
Petroleum oils—							
Gasolines and solvents	'000 gal	39,734	55,593	90,814	4,842	6,582	10,075
Kerosenes . . .	,,	23,686	21,655	31,815	2,535	2.553	3,720
Automotive distillate industrial and marine diesel fuels and heavy distillate, n.e.i. .	,,	91,881	62,964	62,677	7,287	5,310	5,467
Residual oils . .	,,	117,694	123,441	98,553	5,954	5,851	6,291
Lubricating oil . .	,,	17,654	28,664	21,703	5,557	8,577	6,707
Rutile concentrate . .	tons	231,289	258,791	284,995	17,844	19,692	21,865
Zinc—							
Ore and concentrate .	,,	226,561	297,927	312,643	15,442	19,873	21,164
Refinery type shapes .	,,	120,759	96,471	97,177	31,069	23,562	22 597
Zircon concentrate . .	,,	210,428	247,179	266,121	8,978	10,720	11,013
		IMPORTS					
Alumina	tons	51,091	37,047	2,964	3,365	2,543	551
Aluminium, refined ingots	,,	461	361	11,975	351	232	5,822
Asbestos	short tons	55,152	52,584	66,741	6,437	6,435	8,318
Gold, unrefined bullion(*c*)	fine oz	128,099	128,127	122,758	4,003	4,019	4,133
Ferro-alloys . . .	tons	20,019	23,491	23,418	4,496	6,689	6,401
Petroleum oils—							
Crude	'000 gal	3,653,396	4,038,853	4,202,570	160,139	167,008	169,892
Enriched crude and other refinery feedstock .	,,	962,162	999,338	956,716	41,783	43,976	43,100
Gasolines and solvents	,,	190,718	141,888	158,605	20,936	13,949	15,379
Kerosene	,,	47,143	33,563	29,118	4,973	3,515	3,146
Automotive distillate, industrial and marine diesel fuels and heavy distillate, n.e.i. .	,,	43,084	18,370	44,250	3,505	1,578	3,610
Residual oils . .	,,	10,116	23,973	32,249	536	1,149	1,522
Lubricating oil . .	,,	13,009	11,363	12,121	3,864	3,565	3,664
Phosphate rock . .	'000 tons	3,286	3,265	3,431	27,479	30,355	34,140
Sulphur . . .	tons	434,045	513,962	548,563	11,930	17,296	21,632
Tin, refined . . .	,,	203	693	159	661	2,066	448
Titanium oxide (pigments)	,,	1,349	1,110	1,527	525	449	604

(*a*) Australian produce. (*b*) In addition to refined aluminium significant quantities of alumina and bauxite are exported, but details are not available for publication. (*c*) Gold content.

Considerable quantities of metallic ores, concentrates, slags, and residues are exported from Australia for refining overseas. The following table shows the quantities of selected items exported during 1968 and their principal metallic content as estimated by assay.

PRINCIPAL METALLIC CONTENTS OF SELECTED ORES AND CONCENTRATES ETC., EXPORTED FROM AUSTRALIA, 1968

	Metallic contents—estimated from assay									
Ores and concentrates, etc.	*Copper*	*Lead*	*Zinc*	*Tin*	*Tungstic oxide*	*Manganese*	*Bismuth*	*Iron*	*Gold*	*Silver*
	tons	tons	tons	tons	tons	tons	tons	'000 tons	fine oz	'000 fine oz
Copper concentrate(*a*)	8,682	..	..	..	..	..	..	..	15,490	104
Blister copper	7,040	..	..	..	..	..	..	..	62,785	31
Copper matte, slags, etc.(*b*)	3,382	5,589	..	54	..	..	..	..	57	422
Lead concentrate	1,631	83,633	6,833	..	..	..	..	..	28,899	2,735
Lead-silver bullion	..	106,547	..	..	..	..	..	..	..	7,674
Lead slags and residues	231	1,474	2	74	..	..	..	..	..	7
Zinc concentrate	..	2,071	165,506	..	..	..	..	..	..	298
Zinc slags and residues	11	82	4,978	3	..	..	..	..	..	..
Tin concentrate	7	1	..	3,001	..	..	..	..	..	..
Wolfram concentrate	..	..	..	3	347	..	..	..	..	..
Scheelite concentrate	..	..	..	..	975	..	..	..	..	..
Iron ore	..	..	..	..	..	..	..	10,475	..	..
Manganese ore	..	..	..	..	..	251,035	..	..	..	..
Bismuth concentrate	44	..	..	..	..	..	39	..	7,894	1
Total metallic content	**21,028**	**199,397**	**177,319**	**3,135**	**1,322**	**251,035**	**39**	**10,475**	**115,125**	**11,272**

(*a*) Includes copper precipitate. (*b*) Includes copper matte, copper slags and residues and copper-lead dross and speiss.

Direction of trade

The distribution of Australia's mineral exports according to principal destinations, and imports according to principal sources, for the years 1966 to 1968, are shown in the following table.

VALUE OF OVERSEAS MINERAL TRADE, BY COUNTRY OR REGION AUSTRALIA(*a*), 1966 TO 1968

(*Source:* Bureau of Mineral Resources, Geology and Geophysics)

	Value ($m f.o.b.)			*Percentage*		
Country or region	*1966*	*1967*	*1968*	*1966*	*1967*	*1968*
			EXPORTS			
Japan	130.0	213.8	305.9	38.3	47.8	48.6
Other Asian and Pacific	41.4	51.2	48.8	12.2	11.5	7.8
United Kingdom	65.3	63.5	100.4	19.2	14.2	16.0
European Economic Community	38.7	39.7	61.0	11.4	8.9	9.7
United States	48.2	53.9	88.8	14.2	12.0	14.1
Other	15.8	24.9	23.9	4.7	5.6	3.8
Total	**339.4**	**447.0**	**628.8**	**100.0**	**100.0**	**100.0**
			IMPORTS			
Middle East	139.3	143.3	137.8	50.2	47.1	42.8
Indonesia	51.1	52.4	55.1	18.6	17.2	17.1
Other Asian	16.9	23.0	24.7	6.1	7.6	7.7
Pacific	19.9	23.1	29.3	7.2	7.6	9.1
United States	16.0	19.7	17.5	5.8	6.5	5.4
Canada	12.2	14.3	23.8	4.4	4.7	7.4
Europe (including United Kingdom and European Economic Community)	8.5	12.7	14.7	3.1	4.2	4.6
Other	12.7	15.5	18.8	4.6	5.1	5.9
Total	**276.6**	**304.0**	**321.7**	**100.0**	**100.0**	**100.0**

(*a*) Excludes gold movements.

REVIEW OF RECENT DEVELOPMENTS IN THE AUSTRALIAN MINERAL INDUSTRY

Prior to Year Book No. 52 it was customary to include a series of detailed reviews of the principal commodities produced by the Australian mineral industry and recent developments concerning these commodities. However, with the increasing diversification and development of the industry, it has become impractical to continue these reviews in the Year Book and the reader who wishes to obtain information of this kind is referred to *The Australian Mineral Industry—Annual Review* published by the Bureau of Mineral Resources, Geology and Geophysics. That publication contains comprehensive reviews of mineral commodities of importance to the Australian economy, as well as a general review of the industry's performance during each year. Major developments in the industry, particularly during the last year, are reviewed briefly in subsequent parts of this section.

Expansion of the Australian mineral industry was maintained during 1969, with the preliminary value of mineral production increasing by 29 per cent from $855 million in 1968 to $1,100 million in 1969. The major reasons for this increase in the value of mineral production were continued expansion of iron ore mining, and the increased production of black coal in New South Wales and Queensland. The total value of mineral exports continued to increase, mainly because of the increase of iron ore and coal shipments to Japan.

Bauxite

The history of the aluminium industry and recent significant developments in the industry were reviewed in previous issues of the Year Book (No. 51, page 1168 and No. 52, page 1048). The year 1969 was a period of continued growth in the industry both in mining and processing as detailed below.

Bauxite production from deposits at Weipa, Queensland, increased to a rate of 6 million tons in 1968 following completion of a further stage in the development of the mine and associated township, and of ore treatment and loading facilities. It is expected that production will rise to 7 million tons in 1970. Approximately 2.3 million tons from Weipa will be used by the Gladstone, Queensland, alumina refinery, and the requirements of the small refinery at Bell Bay, Tasmania, is estimated as 120,000 tons yearly; the remaining production will be available for export.

Bauxite deposits at Gove, Northern Territory, covering reserves of the order of 250 million tons of ore, are being developed by a consortium of seven Australian and one overseas company. The consortium plans to construct an alumina plant at Gove by mid-1972 with an initial capacity of 500,000 metric tons per annum, increasing to 1,000,000 metric tons annually by mid-1974.

An agreement was signed in Perth in December 1968 with the Western Australian Government for the development of a bauxite/alumina project in the Admiralty Gulf area.

Alumina

Expansion of the alumina refinery at Gladstone, Queensland, was completed by the end of 1968, increasing the capacity of the refinery to 900,000 tons per annum; the plant will be further expanded to 1,275,000 tons yearly by mid-1971 and to 2,000,000 tons per annum by mid-1972. Plans have also been announced to increase the capacity of the alumina refinery at Kwinana, Western Australia, from 830,000 metric tons per annum to 1,040,000 metric tons by the middle of 1970, and to 1,250,000 metric tons per annum by the end of that year. Bauxite supplies for the Kwinana refinery are obtained from deposits 28 miles away at Jarrahdale, Western Australia, the reserves of which are assessed as 500 million tons.

Aluminium

Construction of an aluminium smelter with an initial capacity of 30,000 tons per annum at Kurri Kurri near Newcastle, New South Wales, was completed in 1969. Operating capacity is expected to reach 50,000 tons yearly in the latter half of 1970, and the smelter will be expanded to 100,000 tons following the signing of an agreement with Kobe Steel Ltd for the supply of aluminium ingots. An aluminium powder and paste plant, capable of supplying the whole of Australia's needs, was commissioned in 1968 at Bell Bay, Tasmania. The capacity of the smelter at Bell Bay will be increased to 94,000 tons per annum by early 1971. Additional capacity at Port Henry, Victoria, was commissioned in 1969 bringing the smelter's total operating capacity to 90,000 tons yearly. A letter of intent has been received by the Western Australian Government regarding the possible establishment of an aluminium smelter at Kwinana in ten to twelve years.

Copper

Copper production at Mount Isa will be increased to 150,000 tons yearly by 1974. The expansion programme provides for a new hoisting shaft, extensions to the existing copper smelter and a new concentrator, as well as enlargement of ancillary facilities.

A new copper-gold ore body is being developed near Tennant Creek, Northern Territory. The first stage of development, which will cost $10 million, will have an installed mining capacity of 400,000 tons of ore per annum. Production is scheduled to commence in 1970–71.

Since the beginning of 1967 the Australian Producers' price has been adjusted regularly to reflect movements in the London Metal Exchange daily settlement price. In the early part of 1970, after reaching a record 73 cents per pound ($1,685.2 per long ton) in March, the Australian price eased to 61 cents ($1,366.4) by mid-June.

Iron

The major development of recent years has been the establishment in Australia of a large scale iron ore export industry based principally on steelmaking requirements in Japan. Exports of iron ore and iron ore pellets in 1969 to Japan and elsewhere were 26.4 million tons valued at $230 million.

Additional major contracts for the supply of iron ore and iron ore pellets to overseas steel mills were signed in 1969. In mid-1970 contracts signed for the shipment of ore overseas during 1966 to 1992 exceeded 820 million tons valued at $6,400 million.

At Mount Tom Price, Western Australia, iron ore production capacity is to be expanded from a 1970 level of 17.5 million tons per year to a level of 22.5 million tons per year by the end of 1971. At Paraburdoo, 35 miles south of Mount Tom Price, iron ore deposits are to be developed so that the mine will be capable of producing 5 million tons of ore per year by 1972 and 15 million tons per year by 1974. Port capacity at Dampier, Western Australia, is to be expanded to handle the increased ore production from Mount Tom Price and the new production from Paraburdoo.

Shipments of iron ore from Mount Newman, Western Australia, commenced through Port Hedland in April 1969. Shipments of 12.5 million tons are planned for 1970 and capacity is being further increased to enable ore to be mined and shipped at a rate of 19 million tons per year by April 1971; capacity is expected to exceed 30 million tons per year by 1975.

Annual production from the Mount Goldsworthy, Western Australia, iron ore project is being increased to 6 million tons by 1970 and 8 million tons by 1973. Production at the existing Mount Goldsworthy mine will be increased and deposits at Shay Gap and Kennedy Gap nearby will be developed.

Firm plans are in hand for the construction at Dampier, Western Australia, of a plant to produce metallised agglomerates. Early in 1970 it was announced that letters of intent had been signed for the purchase by Japanese buyers of 6.5 million tons of agglomerates. Delivery is proposed over 10 years from April 1973.

Lead and zinc

Due to the completion of an expansion programme at Mount Isa, Queensland, the Australian production of lead bullion rose 32 per cent and zinc concentrates 20 per cent in 1969. Production of zinc metal set a new record due to the installation of a new zinc fuming plant at Port Pirie, where metal is recovered from lead slags. It is expected that zinc will also be extracted from the residue dump at Risdon by mid-1971. Plans have been announced for the development of a new mine near Mount Isa, and the expansion of the mine at Rosebery in Tasmania. Major increases in exports of lead and zinc, both metal and concentrates, are therefore expected in the early 1970's.

Black coal

There has been a significant revival in the Australian black coal industry in recent years as a result of increased exports and increased consumption of black coal in iron and steel production and electricity generation. These increases have more than balanced reduced consumption in some applications due to competition from fuel oil.

The expansion of the export trade has been of major significance. In 1955 exports were about 200,000 tons valued at about $1.7 million; in 1969 exports were 15.8 million tons valued at $142.5 million. These increased exports have been almost wholly to Japan for use in the iron and steel industry. As a result of this increased demand, new mines have been opened and others are under development in Queensland and New South Wales, and many established mines are being expanded. Exploration for coal has been stimulated and further rich deposits of coking coal have been located, particularly in Queensland.

Petroleum

Developments in the last few years were reviewed in previous issues of the Year Book and the following is a summary of developments in 1969 and early 1970.

At the end of 1969, there were five Australian oil fields in production, namely, Moonie and Alton, Queensland; Barrow Island, Western Australia; and Barracouta and Halibut in the Gippsland Shelf area offshore from Victoria. Another major field, Kingfish also in the Gippsland Shelf area, was ready to start developmental drilling in July 1970. In addition, a small amount of oil is being produced from Bennett No. 1 and several other wells in the Roma area in Queensland. In 1969 commercial and domestic use of natural gas began in Brisbane, Melbourne and Adelaide.

In 1969 and early 1970, additional gas discoveries were made at Tirrawarra No. 1, about 25 miles north of Gidgealpa in South Australia, at Roseneath No. 1 in the far south-west of Queensland, at Palm Valley No. 2 and Petrel No. 1 in the Northern Territory, at Pelican No. 1 off the north coast of Tasmania and most recently an undisclosed amount of hydrocarbons in Emperor No. 1 in the Gippsland Shelf area. The provisional figure for footage drilled in petroleum exploration and development in Australia in 1969 was 1,342,274 feet which is a record; the previous highest figure was 1,141,174 feet in 1965. About 701,800 feet (52 per cent) of the 1969 total was attributed to exploration drilling and about 365,900 feet (27 per cent) was for offshore drilling. A preliminary result shows that 260 wells were completed in 1969 of which 101 were exploration wells.

Nickel

Output from Australia's first major nickel mining operation at Kambalda in Western Australia has grown to more than 25,000 tons of nickel per annum since mining commenced in 1967. Mines at Nepean and Scotia also commenced production in early 1969 and a fourth mine is being developed at Carr Boyd Rocks; all of these mines are located in the vicinity of Kambalda. By late 1970 a refinery at Kwinana, Western Australia, will be producing more than 15,000 tons of nickel metal per annum from concentrates; the remaining concentrates will be exported until further smelting and refining facilities are constructed.

Plans have been drawn for the development of the lateritic nickel deposit at Greenvale in Northern Queensland. Subject to the success of current pilot plant tests, construction of a railway and an ammonia leach treatment plant at Townsville, northern Queensland, is expected to commence in mid-1971. Production of 23,000 tons of nickel oxide sinter per annum could commence during 1974.

Phosphate

Major deposits of phosphate rock were discovered during 1966 near Duchess and Lady Annie in north-west Queensland. The deposits are large by world standards, and feasibility studies are still in progress. Survey work has finished on a possible railway route between Lady Annie and the Gulf of Carpentaria, 800 miles away. Transport and port facilities will be key factors in determining whether the project is to be undertaken.

CHAPTER 28

ELECTRIC POWER GENERATION AND DISTRIBUTION

This chapter is divided into three major parts: the Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; the Snowy Mountains Hydro-electric Scheme; and the origins, development, present situation and new projects of electrical systems in each Australian State and Territory.

The information contained in the chapter relates to situations existing and projects contemplated in December 1969, and may be considerably affected by changes in policy or plans, or by developments in the projects themselves. Greater descriptive and historical detail about the various systems is contained in earlier issues of the Year Book.

INTRODUCTION

Distribution of population and location of power resources in Australia

The two principal centres of population and industry in Australia, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power, and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of Australia, materially influences the distribution of industrial population and the location of major electric power stations. By far the most important source of energy used in the production of electric power in Australia is coal. At 30 June 1969 thermal power equipment represented 68.5 per cent, hydro plant 29.3 per cent, and internal combustion equipment 2.2 per cent of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 13 per cent receiving an annual rainfall of 30 inches or over, and these areas are confined largely to Tasmania and to the narrow coastal strip along the east cost of the mainland. The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 4,000,000 kW by 1975. The two major construction projects in this area are the Snowy Mountains and Kiewa schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount available is smaller than the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent of the total Australian hydro-electric potential. On the mainland the chief source of energy is coal; in Tasmania it is water.

Electric power generation and distribution

At the beginning of this century Australia's electrical undertakings were carried on mainly by private enterprise, but with some measure of governmental control designed to provide standards of safety and to define the scope and obligations of the private organisations. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1961 all major generating stations supplying the public were, in varying degrees, under the control of statutory organisations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies. There are still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas it has been, and remains, the practice for central authorities to sell power in bulk to local distributing organisations which undertake reticulation.

In addition to the private, local government and statutory organisations which generate and or distribute electricity for sale, numerous firms generate power for use in their own establishments, particularly those engaged in mining remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, as the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced. The measures taken by authorities to satisfy the demand created by the post-war growth in population and building and by developments in industry and commerce are described in the following pages.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME*

Snowy Mountains Hydro-electric Power Act 1949-1958

In July 1949 the Commonwealth Government established the Snowy Mountains Hydro-electric Authority, and empowered it to generate electricity by means of hydro-electric works in the Snowy Mountains Area; supply electricity to the Commonwealth (i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and supply to a State, or to a State Authority, electricity not required for defence purposes or for consumption in the Australian Capital Territory.

The Snowy Mountains Act is supported by a detailed agreement between the States of New South Wales and Victoria and the Commonwealth with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Commonwealth, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

Snowy Mountains Hydro-electric Scheme

The broad basis of the Snowy scheme is to transfer waters, which would otherwise flow to the sea unharnessed, from the Snowy River and its tributaries to the inland system, so that the water may be used for irrigation and to provide power. It involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the scheme geographically into two sections, the Snowy–Tumut Development and the Snowy–Murray Development (*see* plate 50 opposite). For purposes of both power production and irrigation it is necessary to regulate run-off, and this is achieved by the use of Lake Eucumbene (formed by the construction of Eucumbene Dam) and other storages to control the waters of the Eucumbene, Murrumbidgee, Tooma, and Tumut Rivers for the Snowy–Tumut Development and of the Snowy and Geehi Rivers for the Snowy–Murray Development. A sectional diagram of the scheme appears on plate 51, page 952.

Snowy–Tumut Development. This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee, and Upper Tumut Rivers and their combined development through a series of power stations down the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene, which has an ultimate usable storage of 3.5 million acre feet. The waters of the Upper Murrumbidgee River are diverted into Lake Eucumbene by a dam at Tantangara and a 10½-mile tunnel from Tantangara Reservoir. From Lake Eucumbene the water flows through a 14-mile tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River, where it joins the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 9-mile tunnel.

From Tumut Pond Reservoir water is conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Talbingo Reservoir, also on the Tumut River.

Tumut 3 Power Station, the largest station of the scheme (generating capacity 1,500,000 kW) and pumping capacity 10,500 cubic feet per second) is being constructed below Talbingo Reservoir and will discharge into Jounama Pondage on the Tumut River. This pondage will provide a downstream pumping pool and also regulate discharges from Tumut 3 Power Station as required. Releases from Jounama Pondage then enter Blowering Reservoir formed by Blowering Dam. This dam, constructed by the Snowy Mountains Authority as an agent for the State of New South Wales, provides for the regulation of power station discharges for irrigation use in the Murrumbidgee Valley. The Authority has constructed a power station at the foot of the dam to generate power from releases of water for irrigation purposes.

Snowy–Murray Development. The principal features of the Snowy–Murray Development are the diversion of the main stream of the Snowy River by tunnels, shafts, and pipelines westwards through

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* *See also* Chapter 24 Water Conservation and Irrigation of this issue and special detailed article in Year Book No. 42, pp. 1103–30.

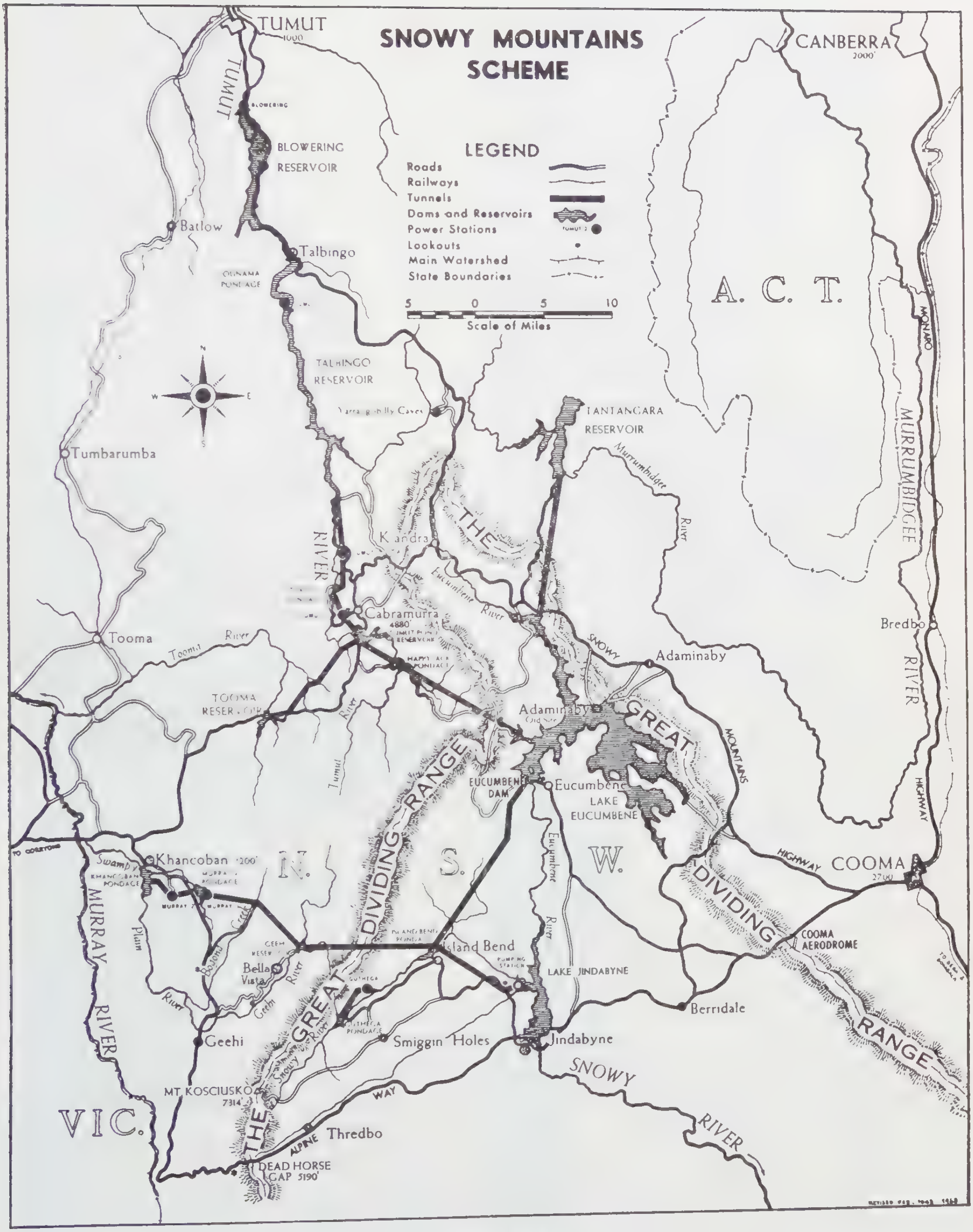
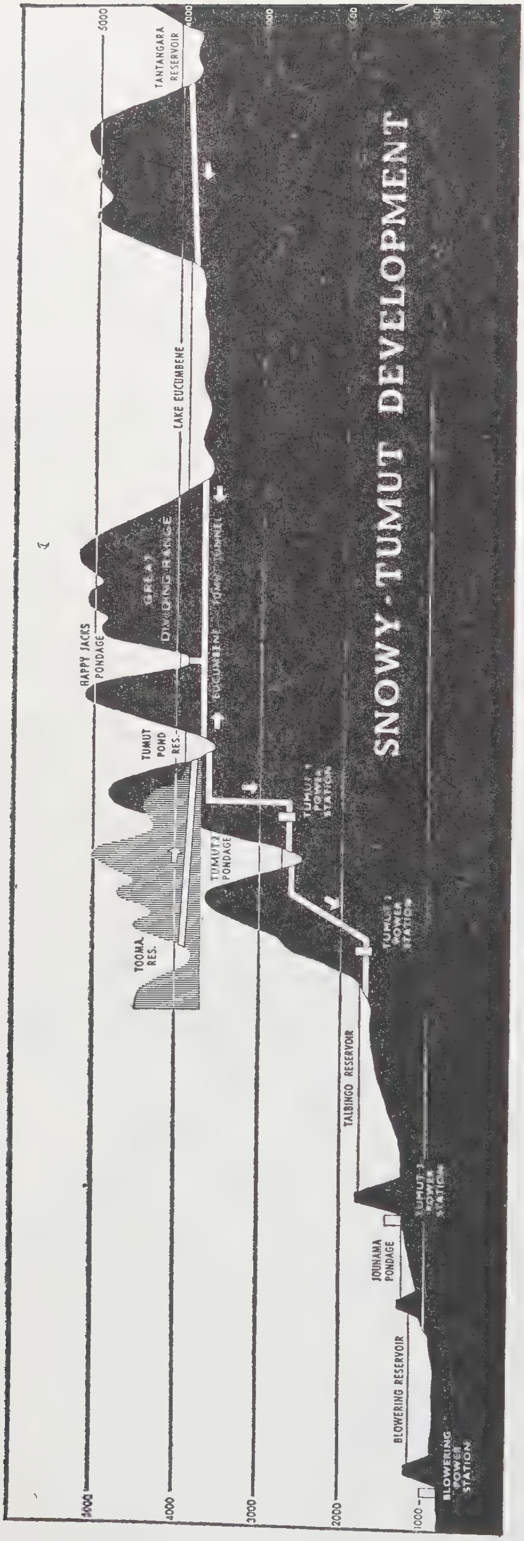

SNOWY MOUNTAINS SCHEME
LEGEND
Roads
Railways
Tunnels
Dams and Reservoirs
Power Stations
Lookouts
Main Watershed
State Boundaries
5 0 5 10
Scale of Miles
TUMUT
1000
TUMUT
BLOWERING RESERVOIR
Batlow
Talbingo
TALBINGO RESERVOIR
Yarrangobilly Caves
Tumbarumba
TANTANGARA RESERVOIR
Murrumbidgee River
CANBERRA
2000'
A. C. T.
MURRUMBIDGEE
MONARO
Kiandra
RIVER
THE
Cabramurra
4880'
Eucumbene River
Tooma
Tooma River
TOOMA RESERVOIR
SNOWY
Adaminaby
Adaminaby
Old Site
GREAT
MOUNTAINS
Bredbo
RIVER
HIGHWAY
RANGE
EUCUMBENE DAM
Eucumbene
LAKE EUCUMBENE
Tumut River
DIVIDING
Khancoban
Swampy
KHANCOBAN PONDAGE
MURRAY
N.
S.
W.
Eucumbene River
COOMA
2700'
HIGHWAY
DIVIDING
Plain
Island Bend
COOMA AERODROME
Bella Vista
Geehi River
LAKE JINDABYNE
GREAT
Berridale
RIVER
Geehi
Smiggin Holes
Jindabyne
RANGE
SNOWY
RIVER
MT. KOSCIUSKO
7314'
WAY
VIC.
THE
ALPINE
Thredbo
DEAD HORSE GAP 5190'

PLATE 50


SNOWY-TUMUT DEVELOPMENT
TANTANGARA RESERVOIR
LAKE EUCUMBENE
GREAT DIVIDING RANGE
EUCUMBENE - TUMUT TUNNEL
HAPPY JACKS PONDAGE
TUMUT POND RES.
TOOMA RES.
TUMUT 2 PONDAGE
TUMUT 1 POWER STATION
TUMUT 2 POWER STATION
TALBINGO RESERVOIR
TUMUT 3 POWER STATION
JOUNAMA PONDAGE
BLOWERING RESERVOIR
BLOWERING POWER STATION
5000
4000
3000
2000
1000

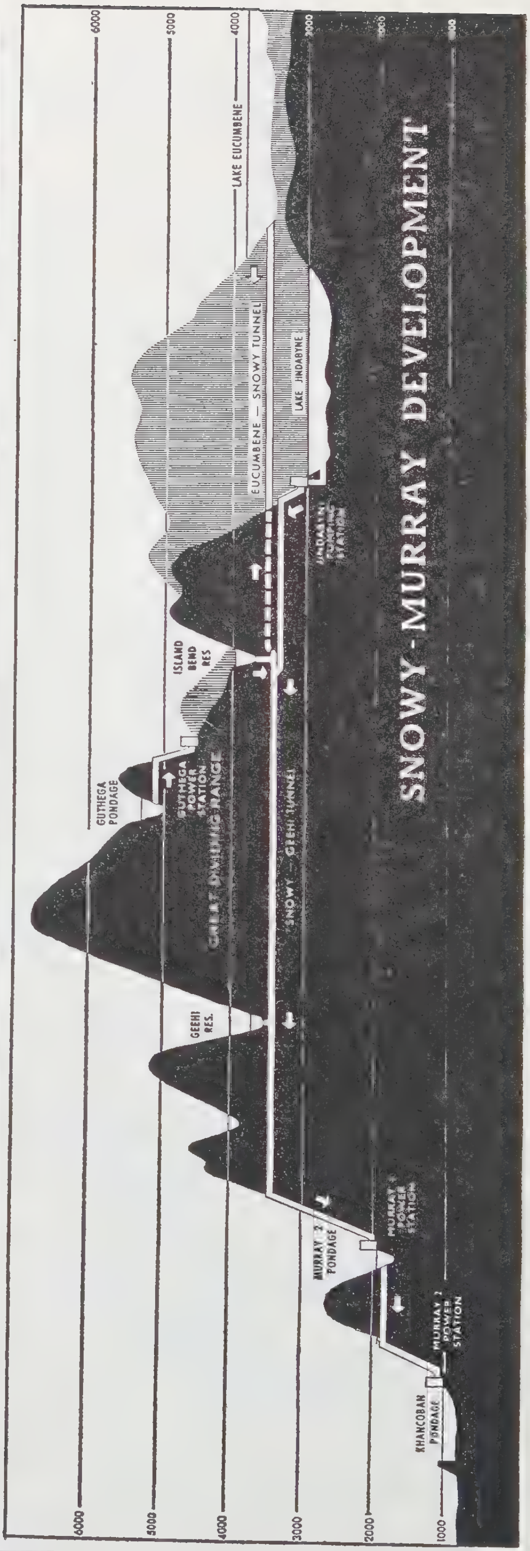

SNOWY-MURRAY DEVELOPMENT
LAKE EUCUMBENE
EUCUMBENE — SNOWY TUNNEL
LAKE JINDABYNE
JINDABYNE PUMPING STATION
ISLAND BEND RES
GUTHEGA PONDAGE
GUTHEGA POWER STATION
GREAT DIVIDING RANGE
SNOWY — GEEHI TUNNEL
GEEHI RES.
MURRAY 2 PONDAGE
MURRAY 1 POWER STATION
MURRAY 2 POWER STATION
KHANCOBAN PONDAGE
6000
5000
4000
3000
2000
1000

PLATE 51

the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray, and the development of power on the western slopes of the Alps. The main works of the development are as follows.

(*a*) A tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River, and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, have a combined capacity of 1,500,000 kW.

(*b*) A tunnel from a dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water is returned towards Island Bend and thence through the Snowy–Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.

(*c*) A dam on the Snowy River near Jindabyne to store the residual flow of the snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers; and a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy–Geehi Tunnel near Island Bend, where it joins the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

The power output of this section of the Scheme is increased by the Guthega Project, a subsidiary hydro-electric project on the Upper Snowy River above Island Bend with a generating capacity of 60,000 kW.

Utilisation of power from scheme

The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations, and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilise the potential of the Snowy Mountains Scheme most effectively, the order of development was arranged so that the early stations operated, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeded and as the load increased in magnitude.

The Snowy Mountains Scheme is situated about midway between the principal load centres of Sydney and Melbourne and is connected to those cities by 330 kV transmission lines. It is, consequently, in a position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States. Although most of the output from the scheme will go to the States of New South Wales and Victoria, the Commonwealth Government has the right to draw from the scheme its requirements of power and energy for the Australian Capital Territory and for defence purposes. For convenience, the Commonwealth's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth and the Electricity Commission of New South Wales. Electricity over and above that required by the Commonwealth Government is divided between the States of New South Wales and Victoria in the ratio 2:1.

Progress of scheme and future programme

The scheme's first power station, Guthega, of 60,000 kW capacity, came into operation in February 1955. It was followed by Tumut 1, an underground power station with a capacity of 320,000 kW, in 1959, and by the 280,000 kW Tumut 2 underground Power Station in 1962. Eucumbene Dam, which provides the major regulating storage for the scheme, was completed in May 1958. Tumut Pond Dam, completed in September 1958, provides the balancing storage for the power stations of the Upper Tumut Works. The first trans-mountain diversion of water from Lake Eucumbene to the Tumut River at Tumut Pond was made possible when the 14-mile Eucumbene–Tumut Tunnel was completed in June 1959. The 10½-mile Murrumbidgee–Eucumbene Tunnel and the 9-mile Tooma–Tumut Tunnel came into operation early in 1961. Following the completion of the Upper Tumut Works, construction activity was concentrated on the Snowy–Murray Development. The first unit of this development, the Eucumbene–Snowy project which comprises Island Bend Dam and the 15-mile Eucumbene–Snowy Tunnel, commenced diverting Snowy River water to storage in Lake Eucumbene in August 1965. Completion of a 9-mile trans-mountain Snowy–Geehi Tunnel, the 7½-mile Murray 1 Pressure Tunnel, the first of the 1-mile long Pressure Pipelines, and the first two units of the 950,000 kW Murray 1 Power Station in April 1966 allowed the first diversion of the water from the Snowy River to the Murray River in the west. All of the ten turbo-generators were brought into commercial operation with the opening of the Murray 1 Project in July 1967.

Khancoban Dam, designed to regulate power station releases before their discharge into the Murray River, was completed in February 1966. The Murray 2 Project in the base of the open cut excavated in the bank of Khancoban Reservoir downstream of Murray 1 Project was completed in 1969. The four units of Murray 2 Power Station totalling 550,000 kW came into commercial operation in October 1969. The total installed capacity of the scheme has now reached 2,160,000 kW.

Construction is also proceeding on the Jindabyne Project. The earth and rockfill dam was completed in September 1967, and the pumping station and Jindabyne-Island Bend Tunnel came into service in February 1969.

Blowering Dam on the Tumut River came into service in May 1968, and the 80,000 kW Blowering Power Station is expected to begin commercial operation in October 1970 when the stored water in the Blowering Reservoir is to be released for the irrigation season downstream on the Murrumbidgee Irrigation Areas.

For the Tumut 3 Project the construction of Jounama Dam was completed in 1968 so that the storage of water in Blowering Dam could commence. Work is under way on the remaining sections of the Tumut 3 Project, and the six units in the power station are scheduled to be brought into service progressively from 1972 to 1974.

STATES AND TERRITORIES

New South Wales

In Year Book No. 39 an account was given in some detail of the origin and development of electricity generation and distribution in New South Wales. At present the following three main Acts govern electricity supply in New South Wales.

- The Local Government Act, 1919, which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.
- The Electricity Development Act, 1945–1968, which established the Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.
- The Electricity Commission Act, 1950–1965, which constituted the Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the Electricity Development Act.

Electricity Commission of New South Wales and electricity supply authorities

The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the Government railways and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except in the Snowy Mountains region.

The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities. At 30 June 1969 there were 41 retail supply authorities throughout the State, comprising 34 electricity county councils (consisting of groups of shire and/or municipal councils), 2 city and 2 municipal councils, 1 shire council, and 2 private franchise holders. In addition to the Electricity Commission, 2 coal companies supply electricity in bulk to retail supplying authorities. Most of the small power stations which had operated in many country centres have closed down as the main transmission network has been extended.

In recent years, most electricity distribution areas have been consolidated on a district basis. Generally, these consolidations have taken the form of a county district consisting of a number of neighbouring shire and municipal and city areas grouped for electricity supply purposes, and administered by a county council comprising representatives elected by the constituent councils. Of the 225 cities, municipalities and shires in New South Wales, 216 are included in one or other of the thirty-four electricity county districts. The majority of these county districts have been constituted since 1945. The largest of the county councils is the Sydney County Council, which at 30 June 1969 was supplying 588,776 consumers in the Sydney metropolitan area.

The Electricity Authority of New South Wales

The Electricity Authority of New South Wales was constituted under the Electricity Development Act, 1945 and is responsible to the Minister for Local Government. The Act confers broad powers on the Authority to co-ordinate and develop the public electricity supply industry. The functions of the Authority include the promotion of the use of electricity and especially its use for industrial and manufacturing purposes and for primary production. Technical advice is given to retail electricity supply authorities on various aspects of their activities such as the framing of retail electricity tariffs, public lighting and standardisation of materials and equipment. The Authority acts in an advisory capacity to the Minister for Local Government on electricity distribution matters generally, and may make recommendations concerning the organisation of distribution, the amendment of the law relating to the generation, transmission, distribution and supply of electricity, or on any other matters affecting the electricity distribution industry.

The Authority administers the Rural Electricity Subsidy Scheme under which the rural electrical development of the State has now been virtually completed where the extension of supply is economically feasible, *see* page 956.

The Electricity Development Act contains provisions for the making of regulations relating to most aspects of electrical safety. Regulations now in force cover such matters as consumers' installations, licensing of electricians and electrical contractors, approval of electrical articles, safety of linesmen, and overhead line construction and maintenance. In addition, a number of aspects not governed by legislation are covered by codes of practice or recommended procedures.

In 1964 the Traffic Route Lighting Subsidy Scheme administered by the Authority was introduced. The Scheme has the objective of reducing the incidence of night road accidents on traffic routes traversing built-up areas by the installation of improved lighting. The scheme provides for financial assistance to councils towards the cost of traffic route lighting installations conforming to the appropriate street lighting code of the Standards Association of Australia, which has been adopted by the Authority as the basis of the scheme. To 30 June 1969 subsidy has been approved in respect of lighting on some 358 miles of traffic routes throughout the State.

Generation and transmission

Of the State's electrical power requirements during the year ended 30 June 1969, 88.1 per cent was generated by coal fired power stations in New South Wales, 0.4 per cent by internal combustion plants, 7.8 per cent by hydro-electric stations (including 6.8 per cent obtained direct from the Snowy Mountains Scheme). Interstate imports accounted for 3.7 per cent of the State's electricity requirements. Whilst the supply of power from the Snowy Mountains Scheme will increase with the expansion of the Scheme, it is expected that coal fired steam power stations (and possible atomic power stations in the future) will continued to supply the greater part of the State's power needs.

Major generating stations. At 30 June 1969 the major power stations of the State system of the Electricity Commission of New South Wales and their effective capacities were as follows: *Steam*—Munmorah (Tuggerah Lakes), 1,050,000 kW; Vales Point (Lake Macquarie), 875,000 kW; Bunnerong (Sydney), 375,000 kW; Wangi (Lake Macquarie), 330,000 kW; Tallawarra (Lake Illawarra), 320,000 kW; Wallerawang (near Lithgow), 240,000 kW; Pyrmont (Sydney), 200,000 kW; White Bay (Sydney), 172,000 kW; Balmain (Sydney), 107,000 kW; Port Kembla, 60,000 kW; Zarra Street (Newcastle), 42,000 kW; Muswellbrook, 30,000 kW; Tamworth, 27,000 kW; Lithgow, 20,000 kW; Maitland, 20,000 kW; Penrith, 20,000 kW; Liverpool, 20,000 kW; *Hydro*—Hume (near Albury), 50,000 kW; Warragamba (near Penrith), 50,000 kW; Burrinjuck (near Yass), 20,000 kW. There were also various other steam, hydro and internal combustion stations aggregating 35,000 kW. The total effective capacity of the Electricity Commission's system was 4,063,000 kW. The greater part of the Commission's generating plant is concentrated within a hundred mile radius of Sydney—the largest stations outside this area being located at Hume, Muswellbrook and Tamworth.

Major transmission network. The retailing of electricity to 97 per cent of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 330 kV, 132 kV, 66 kV and some 33 kV and 22 kV transmission lines, links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 400 miles inland.

At 30 June 1969 there were in service 1,097 route miles of 330 kV (including 64 miles operating for the time being at 132 kV) and 2,826 miles of 132 kV transmission lines (including 50 miles operating for the time being at 66 kV or lower). There were also in service 2,584 miles of transmission line of 66 kV and lower voltages, and 83 miles of underground cable. The installed transformer capacity at the Commission's 135 sub-stations was 14,957,000 kVA'

Separate systems and total State installed capacity. Several small plants which supply isolated towns and villages have not yet been interconnected with the main network. Some local government bodies have undertaken the development of independent power stations. Of these, the more important are: the Northern Rivers County Council, which has constructed a steam power station at Koolkhan (near Grafton) with an installed capacity of 28,750 kW, and the North-West County Council, which has established a 15,000 kW steam power station on the Ashford coalfield. The aggregate effective capacity for the whole of the New South Wales systems and isolated plants was 4,165,540 kW at 30 June 1969 and the number of ultimate consumers at this date was 1,518,177.

Future development

The major new thermal stations already built and those now being developed on the coalfields will become the main base load supply sources for the State. Munmorah, located between Lakes Munmorah and Budgewoi, Vales Point and Wangi, on Lake Macquarie, Wallerawang, near Lithgow, and Tallawarra, on Lake Illawarra, have been completed.

The first 500,000 kW generating unit of the Liddell Power Station in the Hunter Valley is scheduled for commissioning in 1971 and the second, third and fourth units in 1972, 1973 and 1974. With a designed capacity of 2,000,000 kW Liddell is the biggest thermal power station yet planned for Australia.

Future projects include the installation of an additional 500,000 kW unit at Wallerawang, scheduled for commissioning in 1975, and two 660,000 kW units at Vales Point, expected to come into operation in 1977.

The development of the 330 kV main system is continuing. New work in hand includes the provision of 330 kV transmission from Liddell direct to Sydney and the construction of major 330 kV transmission centres at Tamworth and Newcastle and later at Armidale. Plans to augment the transmission system during the next five years provide for the construction of 1,200 route miles of 330 kV lines, 1,200 miles of 132 kV overhead lines, and 17 new sub-stations.

Hydro-electricity

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area (*see* Snowy Mountains Hydro-electric Scheme, page 950). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50,000 kW), Hume Dam (50,000 kW), Burrinjuck Dam (20,000 kW), and Keepit Dam (6,000 kW). The output of Warragamba Power Station depends upon the availability of water surplus to the requirements of the Sydney metropolitan area, and the output of the other stations on the release of water for irrigation. There are, in addition, four smaller hydro-electric installations in operation in various parts of the State.

Rural electrification

When the Electricity Authority of New South Wales was constituted in 1946 less than one-quarter of New South Wales farms within reasonable reach of public electricity supply systems were being served with electricity. Under a subsidy scheme approved in August 1946, local electricity suppliers receive subsidies from the Electricity Authority towards the cost of new rural lines. The amount of subsidy is based on the estimated cost of the proposed extension and the number of consumers able to be served by the new lines. The scheme was designed to encourage local electricity supply authorities to construct the more economic extensions first by fixing a limit to the cost for which suppliers could be subsidised. Originally this limit was $500 per consumer when averaged over the cost of the whole extension, but the limit was raised to $800 in December 1953. Some subsidy was paid on higher cost extensions, but the excess over an average of $800 was not subsidised.

To assist supply authorities in extending supply to less populated, and thus high-cost, areas of the State the subsidy scheme was extended from May 1959 to provide for payment of increased subsidy in respect of extensions where the average capital cost per consumer lies within the range of $1,200–$1,600.

Between August 1946 and June 1969, applications for subsidy had been made by electricity suppliers to the Authority covering rural extensions costing $84.6 million to give supply to some 61,215 farming properties and 36,329 other rural consumers and involving 60,326 miles of line. The greater part of this work had been completed at 30 June 1969. At this date the Authority was committed to the payment of $35,129,258 in subsidies, of which $23,145,374 had been paid.

Under a special scheme of assistance the Electricity Commission makes payments ($1,200,000 per annum from 1967–68 to 1971–72) to offset part of the net liability of local supply authorities in respect of rural electrification.

Victoria

In Year Book No. 39 a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

State Electricity Commission of Victoria

Constituted by the *Electricity Commissioners Act* 1918, the State Electricity Commission is a semi-governmental authority administered since 1921 by a full-time Chairman and three part-time

Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose it is vested with power to erect, own and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, acquire and operate electricity undertakings, develop, own and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power, fuel and subsidiary undertakings, provide for the statutory payment of 3 per cent of its revenue to State Consolidated Revenue, and meet depreciation and all other charges on capital funds.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material, and the testing and approval of electrical equipment and appliances. Incidental to its main operations, the Commission owns and operates the tramway systems in Ballarat and Bendigo.

Since it began operating in 1919 the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State wide basis to the point where its system now generates almost all the electricity produced in Victoria and serves 99 per cent of the population. Victoria's electricity system is based on the utilisation of the extensive brown coal resources of the Latrobe Valley in Gippsland.

Output of brown coal in 1968–69 from the Commission's three open cuts at Yallourn, Morwell and Yallourn North totalled 22,466,000 tons, of which 18,047,000 tons were used in the Commission's power stations. A further 3,998,000 tons of brown coal were used to manufacture 1,471,000 tons of briquettes, of which 296,000 tons were burnt in power stations. The only other fuels used in power generation were relatively small quantities of purchased black coal (11,000 tons) and oil (25,000 tons).

Generation in thermal stations is supplemented by energy from the Commission's hydro stations in the mountainous north-east of the State, and by hydro entitlements from the Snowy Mountains Scheme (one-third of the output after provision of the Commonwealth's needs) and Hume Power Station (half of the output).

Electricity Supply

At 30 June 1969, the number of ultimate consumers in Victoria was 1,211,000, all served by the Commission except the extreme eastern settlements of Mallacoota (local generation) and Berdoc (supplied from an adjoining area of New South Wales).

The Commission sells electricity retail in all Victorian supply areas except for eleven metropolitan municipalities. These municipalities, retailing electricity under franchises granted before the Commission was established, take bulk supply from the Commission. Bulk supply is also provided to several New South Wales municipalities and irrigation settlements bordering the River Murray.

The Commission's retail consumers numbered over 981,000 at 30 June 1969. Of these some 820,000 were domestic, 73,000 industrial and 87,000 commercial. Retail supply is administered through the metropolitan branch and ten extra-metropolitan branches with headquarters located at Geelong, Dandenong, Traralgon, Mildura, Castlemaine, Ballarat, Benalla, Bendigo, Colac and Horsham. At 30 June 1969, there were branch and district supply offices in Melbourne and 100 other cities and towns in Victoria.

Complete electrification of the State has virtually been achieved. By 30 June 1969, over one million homes and nearly 73,000 farms were supplied with electricity. Fewer than 3,000 homes and 1,250 farms in remote and isolated areas are now out of reach of public supply mains.

Electricity production, transmission and distribution

Electricity generated in the State system or purchased by it totalled 12,868 million kWh in 1968–69, or more than 99 per cent of all Victoria's electricity for public supply. The system comprises a series of thermal and hydro-electric power stations. Inclusive of generator capacity both within the State and available to the Victorian system from outside the State, the total installed generator capacity at 30 June 1969 was 3,392,000 kW. Power stations are interconnected and feed electricity into a common pool for general supply. The major power station in the interconnected system is the Hazelwood brown coal burning power station near Morwell, which alone generates over 45 per cent of Victoria's electricity. Hazelwood now has seven of its planned eight 200,000 kW generating sets in service. Other power stations in the interconnected system comprise two further base load brown coal burning power stations, Morwell and Yallourn; steam stations in Melbourne (Newport, Richmond and Spencer Street), Geelong and Ballarat, and also at Red Cliffs, which has, in addition, some internal combustion plant; and hydro-electric stations at Kiewa, at Eildon, on the Rubicon and Royston Rivers near Eildon, and at Cairn Curran. All generators for public supply within Victoria are Commission-owned, except Spencer Street Power Station, which remains the property of the Melbourne City Council, although operated as a unit in the interconnected system, and a small generator at Mallacoota. The Victorian system is linked with the Snowy Mountains Scheme by a 330 kV transmission line, which also allows the interchange of energy between New South Wales and Victoria. The hydro station at Hume Dam on the River Murray is also linked with the Victorian interconnected system. Output and operating costs of this power station, owned by the Electricity Commission of New South Wales, are shared equally by the Electricity Commissions of Victoria and New South Wales.

The electrical transmission and distribution system in the State supply network at 30 June 1969 comprised nearly 59,000 miles of power-lines, 24 terminal receiving stations, 96 main transmission sub-stations, and more than 59,000 distribution sub-stations. Main transmission is by 500 kV, 330 kV, 220 kV and 66 kV power lines which supply the principal distribution centres and also provide interconnection between the power stations. The 500 kV, 330 kV and 220 kV systems total nearly 1,700 route miles.

Future development

Major works in progress are the erection of two large power stations (Hazelwood and Yallourn 'W') burning brown coal on site in the Latrobe Valley.

Hazelwood Power Station, which is nearly completed, is the largest project yet undertaken by the Commission and is designed to have a capacity of 1,600,000 kW in 1971. The first of Hazelwood's eight 200,000 kW turbo-generators was commissioned in October 1964 and another six have been installed at approximately yearly intervals. The last generating set will be in service early in 1971. Power generated at Hazelwood Power Station is transmitted at high voltage to Melbourne metropolitan terminal stations for distribution through the State supply network.

Yallourn 'W' Power Station is being built about half a mile west of the present Yallourn Power Station. It will have two 350,000 kW turbo-generators, the first to be in service in 1972 and the second in 1973.

When these projects are in service the State's power resources, including Victoria's share of the output of the Snowy Mountains Scheme, will have increased to 4,815,000 kW, 45 per cent above the capacity at June 1969.

Queensland

In Year Book No. 39 an account is given of the growth of electricity generation in Queensland, with particular reference to south-eastern Queensland, and of the events leading up to the establishment in 1937 of the State Electricity Commission of Queensland. In Year Book No. 53 an account is given of the post-war development and organisation of the electricity supply in Queensland.

Electricity supply in Queensland is governed by the following Acts which are administered by the Commission.

'*The State Electricity Commission Acts*, 1937 *to* 1965.' These Acts constituted the Commission and define its powers and duties.

'*The Electric Light and Power Acts*, 1896 *to* 1967.' These Acts relate to the constitution of electric authorities, except the Southern Electric Authority and the Northern Electric Authority, and define their powers and duties and the conditions under which electricity is to be supplied and used.

'*The Regional Electric Authorities Acts*, 1945 *to* 1964.' These Acts provide for the constitution of Regional Electricity Boards representative of the Commission and the Local Authorities within each region, and define their powers and responsibilities.

'*The Southern Electric Authority of Queensland Acts*, 1952 *to* 1964.' These Acts established the Southern Electric Authority and define the powers and responsibilities of the Authority.

'*The Northern Electric Authority of Queensland Acts*, 1963 *to* 1964.' These Acts established the Northern Electric Authority. They also define its powers and responsibilities.

'*The Electrical Workers and Contractors Acts*, 1962 *to* 1968.' These Acts provide for the certification of electrical workers and for the licensing of electrical contractors.

State Electricity Commission of Queensland

The Commission commenced to function in January 1938. The Commission is the statutory authority concerned, *inter alia*, with the administration of electricity supply legislation, the general control, organisation and efficient development of the electricity supply industry in Queensland, the forward planning of such development, the control of electricity charges, the administration of regulations and rules relating to safety, the raising of capital, the provision of engineering and consulting services, the promotion of the use of electricity, particularly in manufacturing and rural industries, and the fixing of standards. In addition, it is an authority to which consumers may appeal on matters in dispute between them and their electric authorities. The Commission is also empowered to own directly and operate generating stations and transmission lines and to sell electricity in bulk, but up to the present it has not been found necessary or desirable to implement this power.

Organisation

Regional electrification, with centralised generation and main transmission, is the predominant feature of the organisation of the electricity supply industry in Queensland. The more populous eastern part of the State is served by three major networks.

The southern network embraces the areas of supply of the Southern Electric Authority, the Brisbane City Council, the Wide Bay-Burnett Regional Electricity Board, and the Dalby Town Council. Generation and main transmission in this area are the responsibility of the Southern Electric Authority, which sells energy in bulk to the other three Authorities. The Wide Bay-Burnett Board also operates its own base load power station at Howard. The Southern Electric Authority is also responsible for the distribution of electricity to a large rural area outside metropolitan Brisbane.

The central network is within the area of supply of the Capricornia Regional Electricity Board, which is responsible for the generation, main transmission and distribution of electricity.

The northern network covers the areas of supply of the Cairns, Townsville, and Mackay Regional Electricity Boards. Generation and main transmission are the responsibility of the Northern Electricity Authority, and electricity is purchased in bulk for distribution by the three Regional Electricity Boards. In addition, the Cairns Regional Electricity Board operates small internal combustion generating stations at certain isolated centres in its area, and the Townsville Regional Electricity Board supplies the western area of its region by means of a distribution system based on an internal combustion station at Hughenden.

At present there is no interconnection between these three main networks, but work has started on the construction of 275kV transmission lines between central and southern Queensland, to link the two supply systems. West of the three main networks the form of organisation which has been adopted is determined by the stage of electrical development which has been reached. Immediately west of the Capricornia region the Central Western Regional Electricity Board operates with generation centralised at internal combustion stations at Longreach and Barcaldine. Other smaller regions of electricity supply are centred on Roma and Mount Isa. In addition, parts of southern Queensland are supplied by the Tenterfield Municipal Council and the North West County Council of New South Wales. In the remaining parts of Western Queensland there are a number of isolated electricity undertakings operated by Shire Councils.

The organisation of the industry in Queensland is moving progressively towards a greater integration of generating authorities so that the production of electricity can be centred to an increasing extent on larger and more efficient power stations.

Electricity generation, transmission and distribution

Electricity generated in the State is based primarily on black coal, 89.3 per cent of the total production during 1968–69 being derived from this fuel. Hydro-electric stations, located mainly in North Queensland, provided 9.5 per cent, and the balance of the production was provided from internal combustion and gas turbine stations. The gas turbine stations are located at Rockhampton, Swanbank and Middle Ridge, near Toowoomba and use fuel oil as their primary energy source. Most of the internal combustion stations use oil as fuel but the power station at Roma uses locally produced natural gas and crude oil. Electricity generated in Queensland in power stations during 1968–69 totalled 5,410 million kWh. A further 23 million units were purchased in bulk from other producers of electricity for re-distribution to consumers.

At 30 June 1969 the total generating capacity of all Queensland power stations was 1,634,858 kW comprising 1,405,750 kW of steam plant, 135,208 kW of hydro-electric plant, 38,900 kW of internal combustion plant and 55,000 kW gas turbine plant. The southern electricity network is served by the following power stations: Bulimba 'A' (92,500 kW), Bulimba 'B' (180,000 kW), New Farm (75,000 kW), Tennyson 'A' (120,000 kW), Tennyson 'B' (120,000 kW), Swanbank 'A' (396,000 kW), and Howard (37,500 kW) together with a gas turbine station—Swanbank 'C' (30,000 kW). The central network is served by power stations at Rockhampton (52,500 kW steam and 25,000 kW gas turbine) and at Callide (120,000 kW). In the northern electricity network the principal power stations are at Townsville (37,500 kW), Kareeya (72,000 kW), Barron Gorge (60,000 kW) and Collinsville (60,000 kW). Most of the power stations in the major eastern supply networks of the State are thermal using coal as their primary energy source. The State's two large hydro-electric power stations are in the Cairns region in North Queensland, at Kareeya (72,000 kW) and Barron Gorge (60,000 kW).

Peak load gas turbine stations have been built at Rockhampton (25,000 kW) and Swanbank 'C' (30,000 kW) and the State's largest gas turbine station to date, at Middle Ridge near Toowoomba (60,000 kW) will be commissioned during 1970.

The electrical transmission and distribution systems within the State comprised 44,802 circuit miles of electric lines at 30 June 1969. The main transmission voltages are 132 kV, 110 kV, 66 kV and in certain areas 33 kV. Work has started on the construction of 275 kV transmission lines in southern Queensland and also between Gladstone and Brisbane, the first time transmission lines of such high voltage have been built in Queensland. The electricity supply industry's extensive rural electrification programme has been continued using the single wire earth return system.

At 30 June 1969 the total number of electricity consumers was 547,611 of whom 214,552 were in the Brisbane metropolitan area.

Future development

Major development of the State's generating capacity will be concentrated on the construction of two major power stations, at Gladstone (1,100,000 kW) and Swanbank 'B' (480,000 kW) the completion of Collinsville 'A' (120,000 kW) and the construction of extensions to Collinsville, known as Collinsville 'B' (120,000 kW). The first of Swanbank 'B's' four 120,000 kW generating sets will be commissioned in 1970 and the station is expected to become fully operative in 1973. The Gladstone power station will comprise four 275,000 kW generating sets, the first of which is expected to be commissioned by 1974. The output of these two power stations will help to meet increasing demands for power over the planned southern and central interconnected systems.

In North Queensland the fourth and final 30,000 kW generating set for Collinsville 'A' is scheduled for commissioning in 1971. This will be followed by a major extension programme, known as Collinsville 'B', which will involve the commissioning of two 60,000 kW sets, and will give Collinsville a total generating capacity of 240,000 kW. The two sets are scheduled for commissioning in 1974 and 1977 respectively.

Investigations are already in hand for the planning of another major power station to follow the Gladstone project, as well as the economic feasibility of further interconnection of the State's electricity supply systems.

South Australia

A general historical survey concerning the electricity supply industry in South Australia is given in Year Book No. 39, page 1186. The survey traces the development of the industry from its formation in South Australia in 1895 until the establishment of the South Australian Electricity Commission in 1943.

Electricity Trust of South Australia

In 1946 the assets of the Adelaide Electric Supply Co. Ltd were transferred to a newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the Adelaide Electric Supply Company's Acts, 1897–1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other organisations which generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other organisations, and give or receive supplies of electricity in bulk.

Capacity and production

Of the total installed capacity in South Australia at 30 June 1969, the Electricity Trust operated plant with a capacity of 961,000 kW, and is the most important authority supplying electricity in the State. There were approximately 418,000 ultimate consumers of electricity in the State, of whom 401,000 were supplied directly and approximately 11,700 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne 'B' (240,000 kW), Port Augusta Playford 'A' (90,000 kW) and Playford 'B' (240,000 kW), and Torrens Island (360,000 kW).

The Trust operates two smaller power stations, The Mt Gambier station has an installed capacity of 21,800 kW and burns either wood waste or fuel oil. The other station at Port Lincoln has a 5,000 kW steam and a 4,600 kW diesel plant. Both locations are connected with the Trust's interconnected system with 132 kV lines.

No hydro-electric potential exists in South Australia. Steam generating units comprise 98 per cent of installed capacity and the balance is internal combustion equipment.

Leigh Creek and other new capacity

Fairly extensive deposits of low grade sub-bituminous coal are obtained at Leigh Creek, about 360 miles north of Adelaide. Under the Electricity Trust of South Australia Act, 1946, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and also for sale to other consumers. Production from the Leigh Creek field commenced in 1944, and in the year ended 30 June 1969, 2,142,538 tons of coal were produced, practically all of which was used by the electricity undertaking at the Port Augusta Playford Power Stations, which use Leigh Creek coal exclusively.

A power station is being constructed on Torrens Island near Adelaide consisting of four 120,000 kW turbo-alternators and associated boilers modified to use natural gas or oil and will be completed by 1971. The No. 3 unit consisting of 120,000 kW turbo-alternator and associated boiler was placed on load for the first time in April 1969.

Western Australia

For information on the early history of electricity supply in the metropolitan area, *see* Year Book No. 39, page 1189.

State Electricity Commission of Western Australia

The State Electricity Commission of Western Australia was established by the *State Electricity Commission Act, 1945*. The Commission, as at present constituted, consists of nine members and is empowered to co-ordinate all power undertakings in the State and to encourage and promote the use of electricity and other power.

General pattern of electricity supply

The State Electricity Commission gives central power station supply to the metropolitan area, an area of approximately 30,000 square miles in the South-West and Great Southern Areas, and an area extending eastward from Perth to Koolyanobbing. The policy of extending power supplies to rural holdings is continuing and at 30 June 1969 some 10,984 such consumers were connected. A scheme known as the Northern Areas State Power Scheme is also being developed, and a depot has been established in the Geraldton area where the Commission purchases power in bulk to supply districts north to Northampton and south to Dongara. It also supplies Port Hedland with power which is generated by a diesel station situated in the town.

In the other areas of the State, towns are supplied by the local authority or by a concessionaire operating under an agreement with the local authority and the Commission. Power stations operated under these conditions are exclusively diesel of varying sizes.

In Kalgoorlie the large goldmines generate their own power requirements. The Kalgoorlie Town Council operates a 50-cycle diesel station to supply A.C. consumers in Kalgoorlie and Boulder. The D.C. stations of the Kalgoorlie and Boulder Town Councils will continue to operate for some time at least.

The total number of consumers at 30 June 1969 was 249,336, of whom 229,861 were supplied by the Commission.

The Commission has developed its system to provide for the rapid expansion of industry and housing, and generating plant has increased almost ten-fold in the past twenty-three years. The four major power stations in the system are interconnected with the South-West Power Station at Collie, enabling the most economical units to be used as a base load station. Continuous development of the transmission and distribution system is also being undertaken to keep pace with the growth in consumer demand, which is being maintained at a high level. The activities of the interconnected system for the year 1968–69 were as follows: plant capacity, 529,500 kW; maximum load, 475,000 kW; units generated, 1,902 million kWh; fuel used per unit (kWh) generated, 1.36 lb; coal used, 912,782 tons.

New projects

Contracts have been let for four 120,000 kW oil-fired units for a new station being built at Kwinana. It is expected that these units will be commissioned in 1970, 1971, 1972 and 1973.

Tasmania

A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at lower cost than elsewhere in Australia, or in most other countries. Another factor contributing to the low cost is that rainfall is distributed fairly evenly throughout the year with comparatively small yearly variations. The abundant and comparatively cheap supplies of electricity and other natural resources have attracted to Tasmania a number of important secondary industries, including large electro-chemical and metallurgical works with high load factor (in consequence of which the system load factor is also very high—70 per cent), for which energy costs constitute a large proportion of the total cost of production. The continuous power demand of these organisations when plant is in full operation aggregates 390,000 kW. For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, *see* Year Book No. 39, pages 1192–3.

Hydro-Electric Commission

In 1929 the Government passed the *Hydro-Electric Commission Act* 1929, which established the Hydro-Electric Commission and vested in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania, and authorised it to develop and reticulate electric power for all purposes. In 1930 this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department.

The total installed capacity of alternators in the various power stations operating now, under construction, or projected is as follows.

Power stations	*Water system*	*Date of entry into system(a)*	*kW*
Tarraleah	Derwent	1938	90,000
Waddamana 'B'	Great Lake	1944	48,000
Butlers Gorge	Derwent	1951	12,200
Tungatinah	Nive/Ouse/Little Pine	1953	125,000
Trevallyn	South Esk(*b*)	1955	80,000
Lake Echo	Little Pine/Ouse	1956	32,400
Wayatinah	Derwent	1957	38,250
Liapootah	Derwent	1960	83,700
Catagunya	Derwent	1962	48,000
Poatina	Great Lake	1964	250,000
Tods Corner	Arthurs Lake	1966	1,600
Meadowbank	Derwent	1967	40,000
Cluny	Derwent	1967	17,000
Repulse	Derwent	1968	28,000
Rowallan	Mersey-Forth	1968	10,450
Lemonthyme	Mersey-Forth	1969	51,000
Devils Gate	Mersey-Forth	1969	60,000
Wilmot	Mersey-Forth	1970	30,600
Bell Bay Thermal	..	1970	120,000
Cethana	Mersey-Forth	1970	85,000
Paloona	Mersey-Forth	1971	28,000
Fisher	Mersey-Forth	1971	43,200
Gordon River, Stage 1	Gordon/Serpentine/Huon	1975	240,000

(*a*) Actual till 1969; planned dates for subsequent years. (*b*) Discharge from Poatina enters South Esk via tributaries.

The number of ultimate consumers at 30 June 1969 was 143,551.

New capacity

The Hydro-Electric Commission is engaged on a construction programme comprising the Mersey-Forth Power Development, Gordon River Power Development, Stage 1.

The Mersey-Forth Power Development is scheduled to be completed by 1971. The essence of this development is the diversion of the flows of the Mersey and Wilmot Rivers and tributaries into the Forth River and the construction of Forth River dams. These diverted flows will be used for power generation at seven distinct power stations. The Mersey-Forth Project will add a total of 308,250 kW to the system. The first stage of the Gordon River Power Development involves the construction of a dam and a power station with a proposed instalment of 240,000 kW capacity with provision for an increase to 320,000 kW. An oil-fired thermal station with a single 120,000 kW generator was completed at Bell Bay on the River Tamar in 1970.

The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present programme. Investigations are continuing into the very considerable resources as yet untouched, principally in the west and south-west of the State, and it is estimated that the potential which can be developed economically should ultimately harness 3,000,000 kW to the system.

Statistical summary

The following table shows statistics for each State and Territory separately and for Australia for the year 1967–68. Statistics of the electricity supply industry for the years 1963–64 to 1967–68 are given in the chapter Manufacturing Industry. Particulars of the Snowy Mountains scheme are included under New South Wales in the following table.

CENTRAL ELECTRIC STATIONS: STATES AND TERRITORIES, 1967-68

		N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Generating stations—										
Government	No.	28	12	..	13	12	19	5	..	89
Local authority	,,	8	3	42	7	35	..	..	..	95
Companies	,,	14	1	1	8	42	2	..	..	68
Total stations	,,	*50*	*16*	*43*	*28*	*89*	*21*	*5*	..	*252*
Installed capacity of generators—										
Steam	'000 kW	3,768	2,292	1,220	797	514	10	47	..	8,647
Hydro	,,	1,751	333	135	..	2	915	..	..	3,136
Internal combustion	,,	81	20	(*a*)52	14	158	34	11	..	370
Total capacity	,,	*5,600*	*2,644*	*1,407*	*811*	*675*	*958*	*58*	..	*12,153*
Persons employed(*b*)	No.	4,141	3,654	1,893	(*g*)	1,255	(*g*)	105	..	12,999
Value of output(*c*)	$'000	153,078	101,380	55,347	(*g*)	31,040	(*g*)	2,531	..	386,132
Value of production(*d*)	,,	112,955	72,259	28,514	(*g*)	18,231	(*g*)	1,320	..	263,018
Electricity generated(*e*)	million kWh	18,043	11,419	5,189	3,890	2,216	3,773	122	(*h*)	44,663
Ultimate consumers(*f*)	No.	1,470,761	1,173,110	528,000	408,000	238,252	139,886	8,556	33,286	3,999,851

(*a*) Including gas turbine. (*b*) Average employment in generating stations over whole year, including working proprietors. (*c*) Value, at generating station, of electricity produced plus certain earnings. (*d*) Value added in the process of generation. (*e*) Total generated including that generated by factories for their own use. The generation of electricity within each State takes no account of interchange of electricity between States. Furthermore, Victorian details exclude entitlements to generation from Hume Power Station and the Snowy Mountains Hydro-electric Scheme. (*f*) Approximate figures supplied by the electricity authority in each State. An 'ultimate consumer' is a person, business, undertaking, etc., that has contracted to receive electric power from a public or private organisation supplying this service. The number of ultimate consumers is not identical with the number of persons served with electricity because one ultimate consumer may represent three or four persons, e.g. in a household. (*g*) Not available for publication; included in the total for Australia. (*h*) Not available. Excluded from Australian total.

Commonwealth Territories

The electricity supply undertakings at Darwin, Katherine, Tennant Creek, and Alice Springs in the Northern Territory are operated by the Commonwealth Government.

Australian Capital Territory

The supply authority is the A.C.T. Electricity Authority, which took over the functions of the Canberra Electric Supply Branch, Department of the Interior, on 1 July 1963. Supply was first made available in Canberra during 1915 and was met from local steam plant. Connection to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Locally owned plant consists of 4,000 kW of diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1969 was 36,818. During the year 1968–69 the bulk electricity purchased was 459,758,000 kWh and the system maximum demand was 118,300 kW.

Northern Territory

At Darwin, supply was established by the Town Council in October 1934, but during April 1937 responsibility for generation and supply was transferred to the Northern Territory Administration. The Stokes Hill Power Station is now equipped with four turbo alternators with a total capacity of 47,000 kW. Old Diesel Power Station with a capacity of approximately 5,000 kW is available as a stand-by. A 66 kV transmission system is used in Darwin area. At Alice Springs the power station is equipped with a diesel generating plant of 8,000 kW total capacity. At Katherine the power station is equipped with a diesel generating plant of 2,700 kW total capacity, the generating plant at Pine Creek has a capacity of 180 kW and at Elliot power is supplied by a small automatic diesel alternator of 90 kW capacity. The total number of ultimate consumers served in the Territory at 30 June 1969 was 9,783.

Papua and New Guinea

Papua and New Guinea Electricity Commission. Responsibility for the operation and establishment of the electrical undertakings in Papua and New Guinea is vested in the Papua and New Guinea Electricity Commission, whose headquarters are located at Port Moresby. The Commission came into operation on 1 July 1963, and assumed the functions and responsibilities previously vested in the Electrical Undertakings Branch of the Department of Public Works. The Commission, on its own behalf, operates the public supplies in the main centres of population and, on behalf of the Administration, operates the supply in the minor centres and patrol posts, hospitals, agricultural establishments, etc., where the supply cannot be considered to be a fully commercial supply. It has also regulatory functions associated with the licensing of electricians and contractors, the control of franchise holders and the approval of appliances and electrical materials for use in the Territory.

Generating facilities. The Electricity Commission owns and operates diesel and hydro-electric facilities at Goroka, hydro-electric facilities at Port Moresby and diesel facilities at Lae, Madang, Samarai, Wewak, Rabaul and Kavieng, with a total installed capacity of 49,270 kW at 30 June 1969. The Kokopo Station was closed when the new transmission line from Rabaul came into operation in May, 1969.

	Hydro kW	*Diesel* kW	*Total* kW
Port Moresby	35,500	..	35,500
Lae	..	2,700	2,700
Madang	..	2,280	2,280
Goroka	400	1,000	1,400
Wewak	..	2,300	2,300
Rabaul	..	4,200	4,200
Kavieng	..	450	450
Samarai	..	440	440
Total	**35,900**	**13,370**	**49,270**

In addition, the Commission purchases bulk power from the hydro-electric power stations of Placer Development Ltd for consumption in the township of Lae. The total substation capacity of all the Commission systems combined amounts to approximately 71,000 kVA divided up in 481 stations. The number of consumers served by the Commission at 30 June 1969 was 14,258. The Commission also maintains the generating plant and distribution systems in all minor centres, acting as an agent of, and from funds provided by, the Administration. In the financial year 1968–69, 127 centres with a total installed capacity of approximately 6,500 kW were supplied with power. The townships of Wau and Bulolo are supplied exclusively with power generated by Placer Development Ltd.

Future Development. Work has commenced on the Sirinumu Dam. This will ensure adequate water for the full output of the Rouna 2 Power Station and provide potential for further development of the Laloki River to supply Port Moresby. This is planned for completion by December 1970.

Investigations are proceeding into the future development of the Laloki River and although investigations are not complete it appears that a third power station, near Rouna 1, and a balancing pond at Sogeri will be feasible.

Preliminary investigations of the Vanapa, Angabunga and Musa Rivers are nearing completion with indications that the Musa River will be the best for supply to Port Moresby following completion of the proposed 50,000 kW diesel power station at Baruni.

Officials from the International Bank for Reconstruction and Development visited the Territory between 29 June and 12 July 1970 to appraise the Upper Ramu Hydro-Electric Scheme. Should the Bank decide to finance the project, it is expected that the first stage, estimated to cost $26 million, will be in operation by 1975. This scheme will supply the main centres of Lae, Madang, Goroka and Mount Hagen and smaller intermediate centres.

Two further hydro-power sources in New Britain have been investigated for future development, the Kapiura River and Lake Hargy. Lake Hargy has not yet been fully investigated and the Kapiura River showed no potential. In view of the uncertainty of future hydro-electric power for New Britain, investigations into other power sources are being carried out. The present power station site at Rabaul is limited and a site for a new power station is being sought.

CHAPTER 29

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; the Territory of Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands, deemed to form part of the Northern Territory.

Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 22, and 23 of Chapter 1. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* and the *Australian Capital Territory Statistical Summary* issued by this Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects. The Statistician, Territory of Papua and New Guinea, issues a number of publications containing statistics relative to these two Territories, separate and combined.

Responsibility for the general administration of the Territories of Norfolk Island, Papua, New Guinea, Cocos (Keeling) Islands and Christmas Island is vested with the Commonwealth Department of External Territories; for the Northern Territory (including Ashmore and Cartier Islands) and the Australian Capital Territory with the Department of the Interior; and for Antarctica and Heard and McDonald Islands with the Department of Supply. Matters excepted are defence and civil aviation, and, in the Northern Territory and the Australian Capital Territory, public health, justice, education (excluding Aborigines) and the provision of the basic physical services, which are the responsibility of the Department of Health, the Attorney-General's Department, the Department of Education and Science, and the Department of Works, respectively.

THE NORTHERN TERRITORY

General description

Area

Upon the extension of New South Wales westwards to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911. The total area is 520,280 square miles.

Legislation and administration

On 1 January 1911 the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, page 940.

The *Northern Territory (Administration) Act* 1910-1969 provides for an Administrator, appointed by the Governor-General, to administer the Territory on behalf of the Commonwealth.

It provides for a Legislative Council for the Northern Territory to make ordinances for the peace, order and good government of the Territory. This Council consists of six official members and eleven elected members. A President of the Council is elected from among the elected members. Money votes may be proposed in the Council only upon recommendation by message of the Administrator.

Ordinances are presented to the Administrator for assent. He is obliged to reserve ordinances relating to certain matters, including Crown lands and Aborigines, for the Governor-General's pleasure. Others he may assent to, withhold assent from, or return to the Legislative Council with recommended amendments. The Governor-General may disallow any ordinance assented to by the Administrator and, in respect of an ordinance reserved for his pleasure, he may assent, withhold assent, withhold assent to part, or recommend to the Administrator any amendments to the laws of the Territory that he considers desirable arising out of his consideration of the ordinance.

The Act also provides for an Administrator's Council to advise the Administrator on any matter referred to it, either by the Administrator, or in accordance with the provisions of any ordinance of the Northern Territory. The Council consists of the Administrator, and two official and three elected members of the Legislative Council.

The Territory elects one member to the House of Representatives.

The Corporation of the City of Darwin, established in 1957, consisting of a Mayor and eight Aldermen elected by adult franchise, provides municipal administration in Darwin. Elsewhere in the Territory municipal services are provided by the Administration. Town management boards representing local interests have been established in Alice Springs, Katherine and Tennant Creek to advise the Administration on local matters.

Physiography

The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

The low flat coastline seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland the country generally is devoid of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior system. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

Climate, fauna and flora

There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly all the rainfall occurs in the summer months. Further particulars appear in Year Book No. 6, Page 1116.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of fresh-water fish and littoral *Mollusca*. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. A species of ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been reduced by indiscriminate shooting. Buffalo shooting is, however, now strictly controlled by ordinance.

The vegetation is north Australian in type but a number of forms belong to the Malayan and Oceanic regions. The climate and generally poor soils associated with it give rise to tropical savannah vegetation, with the size and volume of woody material present being closely related to rainfall and the quality of the forests decreasing strikingly as one proceeds inland from the northern coastline. In the north, cypress pine which is termite resistant, ironwood, bloodwood and paperbark timbers are cut and milled for local building purposes. Further inland particularly on the Barkly Tableland and parts of the Victoria River district there are better grazing grasses and some shrubs, while the wide belt of sandy plain between the Barkly Tableland and the ranges in the Alice Springs area, carries mainly spinifex grass and low scrub. The Alice Springs ranges and uplands carry chiefly a dwarf acacia scrub known as mulga, spinifex and other sparse grasses. The principal orders represented in the interior are *Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodenoviaceae*, *Leguminosae* and *Utricaceae*.

Population

See also the chapters Population and Vital Statistics.

The estimated population of the Northern Territory at 30 June 1969, including Aborigines, was 36,833 males, 31,209 females, 68,042 persons. The Aboriginal population at the census of 30 June 1966 totalled 10,651 males, 10,468 females, 21,119 persons. While few Aborigines now live outside settled areas and not all choose to live on reserves, a large area of reserved land totalling 94,196 square miles has been maintained to provide economic resources from which the Aborigines may benefit either directly or from royalty payments.

Advancement of Aborigines

Policy

The Commonwealth and State governments have adopted a common policy of assimilation which seeks that all persons of Aboriginal descent will choose to attain a similar manner and standard of living to that of other Australians and live as members of a single Australian community, enjoying the same rights and privileges, accepting the same responsibilities and influenced by the same hopes and loyalties as other Australians.

Legal status

Under the *Nationality and Citizenship Act* 1948–1966, all Aborigines are British subjects and Australian citizens. Since the commencement of the *Social Welfare Ordinance* 1964 in September 1964, Aborigines in the Northern Territory have been equal at law with all other residents, although some special benefits have been retained for them or have been introduced since then. The Ordinance enables assistance to be given to any person who is socially or economically in need.

Special schools for Aborigines

While the Department of Education and Science is now responsible for community education in the Northern Territory, special schools and pre-schools for Aboriginal children remain the responsibility of the Welfare Branch of the Administration. These special schools and pre-schools are intended as an interim measure only, policy being that all Aboriginal children should eventually receive their education in the community schools. Following expert inquiries, however, it was decided that schools should be established having a syllabus and school texts which take account of the social and cultural background of the Aborigines. In these schools there is a shift of emphasis from theoretical to practical subjects, but where progress warrants it, the child transfers to the ordinary curriculum leading to the general community schools. A transitional school system has also been established, and one of its main objectives is to provide a bridge between the special schools and the community high schools.

Fifty-eight special schools for Aboriginal children had been established by the middle of 1969. Forty-nine of these were conducted by the Administration, eight by missions and one by the managements of pastoral properties. Government subsidies were provided to the missions and pastoral managements concerned. Twenty-five pre-school centres had also been established. Twenty-one of these were conducted by the Administration and four by the missions.

Assistance to Aborigines

There are very few Aborigines following a fully nomadic way of life and most choose to live at settlements run by the Government or by religious missions on the Aboriginal reserves which cover a total area of 94,196 square miles. Land within reserves is available for leasing only to Aborigines for pastoral and agricultural purposes. Significant mining ventures have been established within reserves at Groote Eylandt and Gove, and mineral and timber royalties received from activities carried on within reserves are paid into the Aborigines Benefits Trust Fund. This Fund was established in 1952 and the Minister for the Interior may authorise loans or grants from the Fund to Aborigines. In this matter the Minister has the advice of a special Committee which includes five Aboriginal representatives. Moneys in the Fund may be used for a wide variety of purposes which would benefit the Aboriginal people, e.g. to establish business enterprises, to provide community facilities such as Council houses and sporting ovals, and to assist people to purchase houses and furniture. Disbursements from the Fund totalled $249,250 at 30 June 1970.

An intensive welfare programme to prepare Aborigines for the demands of modern living is being carried out, and twenty Government settlements or welfare centres and thirteen mission stations have been established where Aborigines are assisted to acquire new employment skills and the women receive instruction on home management, etc. Health services (including infant clinics), education, housing, vocational training and employment are provided, and Aborigines are encouraged to take part in the social activities of the community.

Financial and technical assistance is available to Aborigines who wish to develop their own commercial or industrial enterprises. In addition to the Aborigines Benefits Trust Fund, financial assistance is also available from the Capital Fund for Aboriginal Enterprises controlled by the Minister-in-Charge of Aboriginal Affairs.

Production

See also the chapters dealing with particular subjects.

Land tenure

Three-sevenths of the land in the Territory is reserved or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described in Year Book No. 48, pages 111–12. The following changes should, however, be noted.

Leases to Mission Organisations are now granted under the *Special Purpose Leases Ordinance* 1953–1965 for fixed terms or in perpetuity.

Miscellaneous Leases are now granted in perpetuity for purposes such as a market garden, plantation, orchard, vineyard, poultry farm, piggery, or the like.

Darwin Town Area Leases are granted in perpetuity for business or residential purposes, or both, in the Darwin Town Area.

The chapter Rural Industry of this issue contains statistical information concerning areas occupied under various forms of tenure.

Agriculture

Commercial agricultural production is confined to grain sorghum, vegetables and small-scale fruit production for local consumption. Townsville stylo seed production has grown considerably and has become an important contributor to the income of many small landholders.

Information concerning scientific surveys (commenced in 1946), conducted by the Commonwealth Scientific and Industrial Research Organization to determine more accurately the potentialities of the Northern Territory, and the resulting establishment of an agricultural research station at Katherine and experimental farms at Katherine and Berrimah (near Darwin), is given in Year Book No. 51, page 101, and in earlier issues. Information is given also on the establishment of rice research stations and investigational work carried out, and on subsequent rice crop commercial scale operations. The appointment by the Minister for Territories in 1959 of an expert committee to carry out investigations relative to the prospect of agriculture in the Territory and subsequent developments are also referred to.

NORTHERN TERRITORY: AREA AND PRODUCTION OF CROPS
1964–65 TO 1968–69

Crop		*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
		AREA(*a*) (acres)				
Fruit—Bananas		28	20	29	(*b*)	(*b*)
Pineapples		19	12	17	(*b*)	(*b*)
Other		83	78	87	98	118
Total fruit		*130*	*110*	*133*	*98*	*118*
Peanuts		(*b*)	16	(*b*)	12	(*b*)
Sorghum for grain		1,269	1,093	527	(*c*)	(*c*)
Vegetables for human consumption		150	144	218	199	255
Other crops(*d*)		2,687	2,699	2,747	5,691	6,877
Grand total(*a*)		**4,236**	**4,062**	**3,625**	**6,000**	**7,250**
		PRODUCTION				
Fruit—Bananas	bushels	2,448	1,985	1,684	(*e*)	(*e*)
Pineapples	,,	1,142	990	997	(*e*)	(*e*)
Peanuts	cwt	(*e*)	76	(*e*)	32	(*e*)
Sorghum (grain)	bushels	10,693	12,018	7,533	(*e*)	(*e*)

(*a*) Excludes rice; details are not available for publication. (*b*) Not available for publication, included in Other crops. (*c*) Not available for publication, excluded from totals. (*d*) Principally fodder crops. (*e*) Not available for publication.

Pastoral industry

The pastoral possibilities of certain parts of the Territory were recognised at an early date, and both cattle and sheep raising have been attempted. For various reasons sheep-raising has not been very successful, but the cattle industry has progressed steadily and is continuing to expand. There is substantial potential for further expansion in the higher rainfall area of the Territory through the introduction of improved pastures and the use of superphosphate.

NORTHERN TERRITORY: LIVESTOCK, JUNE 1965 TO 1969

30 June—	*Horses*	*Cattle*	*Sheep*	*Pigs*
1965	35,997	1,067,327	9,099	2,182
1966	36,719	1,031,715	8,875	2,275
1967	37,638	1,097,114	8,319	2,791
1968	38,119	1,129,805	8,595	1,999
1969	38,989	1,184,835	7,336	2,488

Mining

During 1968, the value of output of the mining and quarrying industry in the Territory, excluding uranium mining, particulars of which are not available for publication, was $23,446,000. The main minerals produced were copper, manganese, iron ore and gold. This represented an increase of 21 per cent on the previous year.

The bulk of the copper and gold produced in the Territory is obtained from underground mines in the Tennant Creek district. A new small rich gold-mine at Juno came into production in 1967. At Warrego, a low grade copper gold ore body is being developed and production is scheduled to commence in 1972. Plans have been announced to develop another new copper mine in the area, the Gecko mine.

Manganese ore is being produced by open cut methods from extensive deposits at Groote Eylandt in the Gulf of Carpentaria. Production capacity at Groote Eylandt was progressively increased during 1967 with the object of reaching an annual capacity of 400,000 tons. This production supplied all Australian requirements of manganese ore and large tonnages were exported to Japan, Europe and the U.S.A. In 1968 the value of output of manganese ore exceeded that of copper. A further major expansion of manganese ore production is planned.

Production of iron ore at Frances Creek commenced in 1966 and at Mount Bundey in 1967. The output from both of these mines is being exported to Japan. Ore shipments in 1968 from Frances Creek and Mount Bundey totalled 493,000 tons and 143,000 tons respectively.

At Gove, considerable construction activity is in progress as part of a large scale development of extensive bauxite deposits. Under an agreement between the Commonwealth and Nabalco Pty Ltd signed in February 1968 and ratified by ordinance passed by the Northern Territory Legislative Council on 16 May 1968, Nabalco undertook to build an alumina plant with an annual capacity of not less than 500,000 tons by 31 December 1971 in the Northern Territory. Under the terms of a supplemental agreement, signed on 30 May 1969, the equity capital of the project is to be held as to 70 per cent by Swiss Aluminium Australia Pty Ltd, and as to 30 per cent by Gove Alumina Ltd (a consortium of seven Australian companies). Further, the alumina plant is to have an eventual capacity of 1 million tons per annum and is to be built in two stages, of which the first is scheduled for completion by the end of 1971 with a capacity of 500,000 tons per annum. Under this agreement, exports of bauxite will amount to 40 million tons over twenty years.

In September 1968 the Commonwealth Government accepted a joint proposal from two private companies to carry out further exploration and development work on the Woodcutters lead-zinc prospect. Investigation of the project is underway.

Investigations are continuing into possible methods of treating the extensive lead-zinc deposits located in the McArthur River district. Conventional methods are not considered to be suitable for the treatment of these ores.

The search for oil and natural gas in the Territory is continuing. Expenditure on petroleum exploration activity in the Northern Territory for 1968, excluding direct Commonwealth expenditure, totalled $7.7 million. The main areas of interest are the offshore areas of the Bonaparte Gulf Basin, the Ashmore and Cartier Islands area and in the Amadeus Basin of Central Australia. Natural gas was discovered in the Amadeus Basin in 1964. Combined reserves at Mereenie and Palm Valley near Alice Springs are estimated at 3,000,000 million cubic feet. Petroleum exploration is being carried out in the Northern Territory in permit areas covering some 174,000 square miles, of which approximately two-thirds are off-shore.

NORTHERN TERRITORY: MINING AND QUARRYING OPERATIONS, 1965 TO 1968

(Excluding uranium mining)

		1965	*1966*	*1967*	*1968p*
Number of mines and quarries		67	80	74	58
Average number of persons employed during whole year (including working proprietors)		688	814	1,006	1,132
Salaries and wages paid(*a*)(*b*)	$'000	2,867	3,361	4,609	5,707
Total fuel, materials, etc., used	,,	2,571	2,212	2,901	4,211
Value of additions and replacements to fixed assets(*a*)	,,	5,677	7,282	5,195	7,756
Value of output (at mine or quarry)	,,	8,289	13,283	19,316	23,446
Value of production(*c*)	,,	5,715	11,070	16,416	19,235

(*a*) Excludes mines employing less than four persons. (*b*) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (*c*) Value of output less cost of power, fuel and light and other materials and stores used; depreciation and maintenance costs have not been deducted.

Forestry

A programme of forest improvement and development to conserve existing forest areas and increase timber resources is undertaken by the Forestry Branch of the Northern Territory Administration. Basic forestry research is carried out by the Forestry and Timber Bureau at a Regional Research Station established at Berrimah. The Territory forestry programme includes the regeneration and utilisation of native forests, the establishment of 1,000 acres of softwood plantations (mainly native cypress pine) per year and makes provision for the employment and training of Aborigines in forestry work. Local production of log timber, mainly cypress pine, amounted to 1,026,000 super feet in 1968–69 but this was insufficient to meet local needs and some 5,232,000 super feet of sawn timber was imported from interstate and overseas. During 1967–68 the Government drew the attention of industry to the extensive eucalypt forests in the higher rainfall areas of the Territory and to their likely potential for wood chip export industries. Previously these forests were thought to have little or no commercial potential. If a wood chip export industry is established the Territory could become a net exporter of wood products.

Fisheries

Following preliminary surveys indicating the existence of valuable prawn resources off the Northern Territory coast, approval was given in 1968 for seven companies to begin prawning operations. A condition of this approval is that shore processing plants must be established by the companies. Three of these companies are joint Australian-Japanese ventures involving the use of foreign vessels and crews for a limited period. The joint ventures are required to establish their processing plants in Darwin; one of these plants commenced operations at the beginning of the 1970 season. Of the four Australian companies one has elected to process in Darwin and the others at Katherine (with a trawler base at the mouth of the Roper River), Groote Eylandt and Gove. Processing plants at Katherine and Groote Eylandt have commenced operating. During a limited establishment period the three Australian companies outside Darwin have been given protection against the establishment of additional processing plants in the areas in which they have elected to operate. Provision has also been made for participation of Aborigines in the industry. During 1969, the first full season of prawning operations, prawns valued at $4.3 million were exported from the Territory.

The other main fishery in the Territory is the marine fishery based on Barramundi. In addition a small cultured pearl industry has been established.

NORTHERN TERRITORY: FISHING(*a*) 1964-65 TO 1968-69

		1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Prawning—						
Estimated gross weight of prawn catch	'000 lb	. .	1	1	23	2,375
Gross value of prawns	$'000	. .	1	1	14	831
Other fisheries—						
Estimated landed weight of fish catch	'000 lb	290	346	550	557	534
Gross value of fish	$'000	55	57	73	92	96
All fisheries—						
Number of boats engaged		28	43	60	53	110
Number of men employed		69	120	133	123	573

(*a*) Excluding pearl shell fisheries and pearling.

Secondary industries

The secondary industries that have so far been established in the Territory have been largely the service industries normally associated with a developing area, such as electrical repairs, printing, motor and marine engineering, plumbing, welding, joinery, sheet metal work, and blue metal crushing. Industrial investments by private interests in recent years include plants to manufacture bitumen, clay bricks, concrete bricks, reinforcing steel, concrete products and fencing materials.

NORTHERN TERRITORY: FACTORIES, 1963-64 TO 1967-68

		1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
Number of factories(*a*)		139	174	185	187	188
Average number employed(*b*)—						
Males		978	1,098	1,182	1,308	1,380
Females		97	112	112	115	139
Persons employed		*1,075*	*1,210*	*1,294*	*1,423*	*1,519*
Salaries and wages paid(*c*)—						
Males	$'000	2,628	3,298	3,666	4,146	4,721
Females	,,	142	185	192	203	263
Total salaries and wages paid	,,	*2,770*	*3,483*	*3,859*	*4,349*	*4,983*
Value of power, fuel, light, etc. used(*d*)	,,	735	865	856	946	1,159
Value of materials used(*e*)	,,	3,384	4,550	5,497	7,214	7,995
Value of production(*f*)	,,	4,938	6,654	7,103	7,847	9,680
Value of output(*g*)	,,	9,057	12,068	13,456	16,007	18,831
Value of land and buildings(*h*)	,,	4,586	5,668	6,101	6,482	8,150
Value of plant and machinery(*h*)	,,	6,046	6,103	5,954	6,825	6,696

(*a*) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (*b*) The aggregate of the average number of persons employed in each factory. Includes working proprietors. Figures represent average employment over the whole year. (*c*) Excludes drawings by working proprietors. (*d*) Includes water and lubricating oil. (*e*) Includes also containers, etc., tools replaced and repairs to plant. (*f*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*g*) Value of goods produced including amounts received for repair work and other work done. (*h*) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

Tourism

Tourism has become one of the Territory's major industries in recent years. The number of visitors to the Northern Territory in 1964–65 was 33,000, and the value of visitor expenditure was $6.9 million. In 1968–69 visitors and spending had more than doubled and 70,000 tourists visited the Territory spending $16 million.

A firm of consultants was commissioned in 1968 to undertake a survey of the tourism potential of Central Australia, and in particular the Ayers Rock Mount Olga National Park. The following reports were presented to the Government in 1969: 'Tourism Plan for Central Australia', 'Ayers Rock Mount Olga National Park Development Plan'. The reports provide useful guidelines for the formulation of a tourism development programme which would encourage more overseas and domestic visitors to the area.

Trade, transport and communication

Trade

No comprehensive record is kept of the trade between the States and the Territory. The following table shows the values of the principal commodities imported into and exported from the Northern Territory from or to overseas countries during the years 1964–65 to 1968–69.

NORTHERN TERRITORY: PRINCIPAL OVERSEAS IMPORTS AND EXPORTS, 1964-65 TO 1968-69

($'000)

Commodity	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
IMPORTS					
Petroleum and shale spirit—					
Aviation spirit	143	158	277	216	234
Other (motor spirit)	339	456	542	587	577
Aviation turbine fuel	1,022	955	615	1,099	1,513
Other oil(*a*)	487	838	781	1,112	1,757
Sulphur	71	..	70	486	168
Portland cement	322	410	311	370	650
Timber (undressed hardwood)	214	334	183	206	380
Iron and steel manufactures	(*b*)	832	3	1,195	893
Machinery and transport equipment		922	3,914	2,376	10,886
Other articles	1,526	691	690	1,760	4,742
Total imports	**4,124**	**5,596**	**7,386**	**9,407**	**21,800**
EXPORTS(*c*)					
Meats	2,323	3,348	3,422	4,864	4,794
Hides and skins, raw	123	61	227	135	209
Iron ore and concentrates	..	..	..	3,053	6,467
Non-ferrous ores and concentrates	9	173	2,682	4,474	8,540
Copper ores and concentrates	805	2,044	1,512	775	..
Pearls	170	179	34	39	8
Other articles	379	593	1,091	4,515	8,916
Total exports	**3,809**	**6,398**	**8,968**	**17,855**	**28,934**

(*a*) Includes kerosene, gas oil, diesel oil, residual oil, etc. (*b*) Included in other articles. (*c*) Includes domestic exports and re-exports.

Shipping

Shipping services to Darwin are provided from the eastern States by ships of the Australian National Line and from the west by the Western Australia State Shipping Service. Increasing numbers of oil tankers and overseas general cargo vessels visit Darwin while iron ore carriers continue to load lump and fine ore for Japan. The establishment of a prawning industry has resulted in an increasing number of prawning vessels entering the port. Activity is also increasing as a result of visits by oil rig tenders.

Shipping services to Groote Eylandt involve mainly ore carriers for the export of manganese ore. A regular general cargo service is provided by vessels based in Brisbane. This service also operates to Aboriginal communities on the Gulf of Carpentaria and to Gove where it is supplemented by another service operating from East coast ports. The export of bauxite from Gove has not yet commenced.

Mission and privately owned boats and barges also provide services from Darwin to Aboriginal communities and ports along the coast.

The Australian National Line is replacing its vessels now calling at Darwin with a bulk ore/container vessel which will backload manganese ore from Groote Eylandt to Tasmania.

Developments proposed for the port of Darwin within the next two years will improve the capacity of the port to handle the increase in shipping.

Air services

At 30 June 1969 there were 118 aerodromes in the Territory, ten of which are maintained by the Commonwealth Department of Civil Aviation. The overseas passenger services using the Darwin international airport are Lufthansa (Sydney to Frankfurt); Qantas/B.O.A.C. (Sydney to London); B.O.A.C. (Sydney to Hong Kong); Union de Transports Aeriens (Paris to Los Angeles via Noumea); and T.A.A. on behalf of Transportes Aeros de Timor (Darwin to Baucau). Regular inland services to Darwin, with, in come cases, intermediate stops at Territory centres, are operated by Trans-Australia Airlines and Ansett Airlines (from Adelaide, Melbourne, Sydney and Brisbane), and MacRobertson-Miller Airways Ltd (from Perth and Derby), MacRobertson-Miller Airways Ltd and Connellan Airways Ltd operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

Railways

The Commonwealth Railways Commissioner operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 822 miles, of which about 200 are in the Northern Territory. The line is standard gauge from Port Augusta to Maree, a distance of 217 miles, and 3 ft 6 in from Maree to Alice Springs. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft 6 in gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and 6 miles north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

Roads

The Stuart Highway, 954 miles long, connects Alice Springs with Darwin and runs via Katherine and Tennant Creek. The Barkly Highway, 403 miles long, connects Mount Isa (Queensland) with Tennant Creek and joins the Stuart Highway some 16 miles north of Tennant Creek. These highways are used for carrying various freights, including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. There are now approximately 12,000 miles of roads in the Territory of which 2,070 miles are sealed.

Work on a programme for reconstruction and development of beef cattle roads was commenced in 1961–62. To June 1969 $30.2 million has been authorised for the improvement of 1,600 miles including the sealing of 950 miles. Expenditure to 30 June 1969 was $18.6 million. The transport of cattle by road is expected to increase the number, quality and value of cattle turned off.

Posts, telegraph, telephones and wireless

Postal communication is maintained by road, rail and air transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering 2,230 miles, runs from Adelaide to Darwin and links Darwin in telegraphic communication with other parts of the world. Trunk telephone lines extend from Adelaide and Townsville to Darwin, providing telephone communication with the capital cities of Australia. These lines also carry interstate telegram and telex traffic and serve the towns along the routes.

Darwin is connected by high frequency radio to Gove Peninsula and to Groote Eylandt. In addition high frequency radio telephone exchanges have been established at Alice Springs and Katherine which provide connections to the telephone network for pastoral, mining, tourist and other organisations throughout the Northern Territory and across the border into Queensland, South Australia and Western Australia. The majority of homesteads on pastoral leases are equipped with radio transceivers operated under licence from the Postmaster-General's Department.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek and Katherine and there is a commercial station at Darwin.

Education

See also the chapter Education, Cultural Activities and Research.

Community schools

Since February 1968 the Commonwealth Minister for Education and Science has been responsible for community education in the Northern Territory. Community schools are operated by the Commonwealth under an agreement with the South Australian Department of Education which provides teachers and curricula and is represented in Darwin by a Director, Northern Territory Schools. At 1 August 1969 there were twenty-six government schools in the Territory, with 8,561 pupils, and five non-government schools, with 1,256 pupils, providing instruction according to the South Australian curriculum. High schools have been established with classes to matriculation level at Darwin and to leaving certificate level at Alice Springs. Area Schools provided classes up to third year high school level at Katherine, Tennant Creek and Batchelor.

All children who live more than 10 miles from a suitable school and board away from home in order to attend school receive an allowance of up to $370 (basic $250 plus $120 on a graduated scale according to family income) per annum plus fares reimbursement. Limited numbers of special Northern Territory secondary and tertiary scholarships supplement the normal Commonwealth scholarship provisions. The secondary scholarship provides a benefit of $100 per annum. The tertiary award covers the costs of tuition and other compulsory fees. Book allowances ranging from $16 to $26 per annum are allowed to secondary students whose parents reside in the Northern Territory. A correspondence supervision allowance of up to $100 per annum per child may be claimed by parents who employ a governess or domestic help and whose children are enrolled with a correspondence school. The broadcasts, 'School of the Air' supplement the lessons of the South Australian Correspondence School. A conveyance allowance may be claimed by parents who live more than 3 miles from a school or bus run and who transport their children to school daily by private transport. Free text books are supplied to primary school students and, subject to a means test, free exercise books and materials may be approved. Full-time non-salaried tertiary students who do not receive assistance from any other source are entitled to reimbursement of a return air fare per annum at tourist class rates less a deduction of $10. External students of the University of Queensland are reimbursed the surcharge placed on Northern Territory students subject to satisfactory completion of each term's work.

At 30 June 1969 there were fourteen government pre-school centres in the Territory, with an enrolment of 917 pupils. A number of scholarships are offered each year for the training of pre-school teachers.

Theoretical training of apprentices

The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

Finance

Details of receipts and expenditure of the Territory for the years 1964–65 to 1968–69 are shown in the table following. In this table the receipts and expenditure of the Northern Territory have been classified into a National Accounts form. The table covers transactions relating to the Northern Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Northern Territory Government Settlements Canteens, Northern Territory Housing Commission, Northern Territory Housing Loans, and Northern Territory Transport. Details of the financial transactions of the Darwin City Council are also incorporated in the table. Revenue derived by the Commonwealth from income taxes, customs duties, etc. levied in the Northern Territory and expenditure by the Commonwealth in the Northern Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

NORTHERN TERRITORY: RECEIPTS AND EXPENDITURE, 1964-65 TO 1968-69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
RECEIPTS					
Taxation—					
Stamp duties	42	53	55	74	86
Motor registration	213	237	273	321	517
Other	435	480	656	812	1,541
Interest, rent, etc.	758	856	963	458	664
Public enterprises income	426	801	1,243	2,204	2,273
Net sale of local and semi-government securities	392	227	−6	−393	−103
Other receipts—					
Net charge to Commonwealth budget	32,538	38,978	50,590	53,159	61,263
Other(*a*)	−36	−267	−114	359	−4,123
Total receipts	**34,768**	**41,367**	**53,659**	**56,994**	**62,118**
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	460	524	576	748	887
Education	1,209	1,472	1,641	2,141	2,814
Public health and welfare	6,802	6,618	8,021	9,330	10,105
Other	8,402	10,683	12,473	13,996	15,944
Capital expenditure on new assets and stocks—					
Roads	2,950	4,514	4,727	7,187	8,311
Housing	3,850	5,161	5,341	6,509	6,521
Other	10,016	11,780	20,374	17,390	17,191
Net purchase of existing assets(*b*)	−114	−328	−1,323	−2,970	−3,314
Cash benefits	271	300	316	369	450
Subsidies	260	360	242	311	337
Interest paid	112	118	124	81	90
Net advances—					
Housing	110	−141	782	1,475	2,346
Other	422	301	357	421	429
Grants towards Private Capital Expenditure	18	5	7	6	7
Total expenditure	**34,768**	**41,367**	**53,659**	**56,994**	**62,118**

(*a*) Includes movements in cash, investments, etc. (*b*) Minus sign (−) denotes excess of receipts (from sales) over expenditure on, or purchases of, existing assets, including housing.

THE AUSTRALIAN CAPITAL TERRITORY

General description

The Commonwealth Constitution provides that the Seat of Government of the Commonwealth shall be in the State of New South Wales but distant not less than 100 miles from Sydney. After a number of alternative sites were considered, an area of 911 square miles lying approximately 200 miles south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 28 square miles at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility for administering the Australian Capital Territory lies with the Department of the Interior, whose functions include housing, police, and municipal services. Education, public health, justice and the provision of basic physical services, including water supply, sewerage and roads, are the responsibility of the Departments of Education and Science, Health, Attorney-General's, and Works. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

The Australian Capital Territory Advisory Council was established in 1930. It has eight elected members and a representative from each of the Departments of Interior, Works, and Health, and the National Capital Development Commission, as well as an observer from the Department of Education and Science. The Council advises the Minister for the Interior on matters affecting the Australian Capital Territory. Ordinances are submitted in draft form to the Council for advice and comment before being implemented.

At the census of 30 June 1966 the population of the Australian Capital Territory was 96,013, made up of 92,308 in the Canberra metropolitan area and 3,705 in rural areas (including Jervis Bay). The estimated population of the Territory at 30 June 1969 was 62,813 males and 59,192 females, 122,005 persons. *See also* the chapters Population and Vital Statistics.

National Capital Development Commission

The National Capital Development Commission Act 1957–60 provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The year 1968–69 was the eleventh year of the Commission's operations. Construction work was carried out by means of agency arrangements with the Department of Works and private consultants. Details of the expenditure by the Commission in each year from 1964–65 to 1968–69 are included in the table on page 980. Total expenditure in 1968–69 was $47.2 million, comprising land development and services $10.3m, water, sewerage and stormwater trunk services and headworks $3.3m, housing, flats and other accommodation, $9.1m, education facilities $4.2m, roads, bridges and traffic control $5.6m, city works $3.5m, Commonwealth offices $7.7m, national works $1.7m, and others $1.8m.

The following major works were completed during 1969 by the Commission and its agents: Melrose High School, Canberra High School (Aranda), Lyneham High School extensions, Page Primary School, Aranda Primary School, Farrer Primary School, Cook Primary School and Macquarie Hostel in Barton.

Works under construction at the beginning of 1970 included the following projects: Campbell Park offices, Civic offices extensions, C.S.I.R.O. headquarters building in Campbell, Russell buildings Nos 10, 11, 14, Scarborough House in Woden town centre, Juliana House in Woden town centre, Government stores and transit depot in Fyshwick, Capital Hill Ring Road, Adelaide Avenue–State Circle Interchange, Belconnen–water pollution control centre, Bendora–Mount Stromlo gravity main extension, Belconnen High School, Higgins Primary School, Waramanga Primary School and Weston Creek 1 Primary School.

Works and services

Housing

Until the period following the 1939–45 War most houses and flats in the Australian Capital Territory were built and rented by the Department of the Interior. More recently, an increasing number of houses and flats have been built by private enterprise, and as a result the proportion of houses and flats in the Australian Capital Territory occupied by tenants of the Department of the Interior has fallen from 79.7 per cent of total occupied houses and flats in 1954 to 58.3 per cent in 1961 and 38.8 per cent in 1966. Although the bulk of rented accommodation is provided by public authorities and will continue thus in the foreseeable future, there has been a considerable increase in the proportion of home ownership in the Australian Capital Territory, since 1954. The proportion of houses and flats owned or being purchased by instalments has risen from 19.5 per cent in 1954 to 29.0 per cent in 1961 and 45.6 per cent in 1966. In June 1966, 38.6 per cent of the total occupied private dwellings in the Canberra City District were owned by the Department of the Interior, and in June 1969, 33.3 per cent. Home building activity in the Woden Valley and Weston Creek, south-west of the former city area and Belconnen, north-west of the former city area, has continued to expand, and at June 1969 there were 7,396 occupied private dwellings in the Woden Valley and Weston Creek area, and 2,264 occupied private dwellings in the Belconnen area. *See also* the chapter Housing and Building.

Municipal services

Canberra has been developed as a garden city. More than eleven million trees and many acres of lawns have been planted since 1927. The development of new areas of parkland and the maintenance of existing tree and lawn areas is the responsibility of the Parks and Gardens Branch of the Department of the Interior. Municipal services are also provided by the Department of the Interior.

At 30 June 1969, 31,283 meters were connected to the city water supply, drawn through nine service reservoirs from three storages on the Cotter River with a total capacity of nearly 20,000 million gallons. In 1968–69 some 6,089 million gallons of water were consumed in Canberra, and in addition the system supplied 382 million gallons to Queanbeyan, New South Wales. Treatment works at Weston Creek, Belconnen and Fyshwick dispose of Canberra's sewage. At 30 June 1969, 534 miles of sewers, 9 miles of rising sewerage mains and 573 miles of storm water drains were laid.

Department of Works

Apart from the work it carries out for the National Capital Development Commission, the Department of Works acts as design and supervision agent for other Commonwealth departments and instrumentalities. Total expenditure during 1968–69 on all operations amounted to $11.4 million ($10.7 million in 1967–68), comprising: building works—housing $68,782, other building $4,279,725; engineering works $1,162,700, repairs and maintenance—building $2,074,133, engineering $3,637,696, and purchase of plant $148,207.

Production

See also the chapters dealing with particular subjects.

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and the chapter Rural Industry of this issue contains statistical information on the subject. (*See also* § 1. Canberra: Fifty Years of Development, page 123 of Year Book No. 49.)

Under the *Seat of Government (Administration) Act* 1910–1965, no Crown lands in the Territory may be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. In general, leases of land in the city area are granted under the *City Area Leases Ordinance* 1936–1969. In special circumstances land may be leased for purposes other than business or residential under the *Leases (Special Purposes) Ordinance* 1925–1953 and for church purposes under the *Church Lands Leases Ordinance* 1924–1966. As considerable areas of Commonwealth owned land in the Territory are not immediately required in connection with the establishment of the City, they have been leased for agricultural or grazing purposes for terms consistent with the anticipated growth of Canberra under the *Leases Ordinance* 1918–1966. Some lands in the Territory, in areas generally remote from the City, remain in private ownership under Freehold Title.

The Commonwealth Territory at Jervis Bay, comprising about 28 square miles, was acquired from New South Wales for the possible provision of port facilities in connection with the Australian Capital Territory. A portion of the area is occupied by the Royal Australian Naval College (H.M.A.S. *Creswell*) and a Royal Australian Navy airfield. Several blocks fronting Sussex Inlet have been leased for guest houses and holiday camps, etc., under the *Leases Ordinance* 1918–1966, and an area of land in the Murray's Beach area has been set aside for possible use as an atomic power station under the control of the Australian Atomic Energy Commission. Apart from picnic and camping areas, experimental planting, afforestation and soil conservation activities, the remainder of the area is being maintained in its natural state.

Forestry

Forestry operations in the Territory were begun on Mount Stromlo in 1915. Plantings up to 1925 were chiefly decorative, but since then a much wider programme has been undertaken. In 1926 a comprehensive review was made of the Territory's potential for forest development, and a programme for the development of commercial forests was approved. Most of the better native forest has since been placed under management, and, following survey and assessment work, forestry operations, including fire-control, have been extended to 100,000 acres of eucalypt forest in the lower Cotter Catchment Area.

Afforestation work has also been undertaken, and softwood plantations (mainly *Pinus radiata*) have been established at Uriarra, Stromlo-Green Hills, Pierce's Creek, Kowen, Tidbinbilla, Jervis Bay and Boboyan. Experimental plots have been established at Jervis Bay and in the Brindabella Ranges, and soil conservation plantings made at various locations throughout the Territory. The total area of softwood plantations within the Australian Capital Territory at 30 June 1970 was 30,729 acres, of which 27,991 acres were *Pinus radiata*, the balance consisting chiefly of *Pinus ponderosa* and *Pinus nigra*, plus 720 acres at Jervis Bay, mainly *Pinus radiata* and *Pinus elliottii*.

Continued thinning operations have improved all Australian Capital Territory forests so that they now yield a wide variety of products. Board-logs and case timber form the bulk of production, but some poles, fencing timber, and pulpwood are now being produced. The yearly output from pine plantations has increased from 2,500 cubic feet in 1930–31 to 1.82 million cubic feet in 1969–70. The 1969–70 output was valued at $477,000 delivered at mill door Canberra, yielding a net stumpage of $180,000 to the Commonwealth. The total net stumpage from all Australian Capital Territory plantation sales to date is $1,922,000.

There was no hardwood log production in 1969–70. Up to 30 June 1970 a total of 25.12 million cubic feet of pine logs had been cut from plantations, while hardwood production from the Australian Capital Territory, including Jervis Bay, remained at 4.3 million cubic feet.

In 1970 the department entered into an agreement to supply 50 million super feet annually of logs of all sizes to a new purchaser, who is required to establish a major plywood factory plus a sawmill with drying and re-manufacturing processes plus facilities to chip small logs and solid residues for use elsewhere. This pioneering integrated venture will result in major changes to the pattern of sale of forest produce in 1972.

Agricultural, pastoral and secondary industries

During 1968–69 the production of the more important items of the agricultural and pastoral industry was: wheat 83,674 bushels; wool 2,059,000 lb; whole milk 898,000 gallons; meat (carcass weight), fresh 4,591 tons. The numbers of livestock depastured at 31 March 1969 were: horses 705; cattle 13,845; sheep 245,884.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory.

AUSTRALIAN CAPITAL TERRITORY: FACTORIES, 1963-64 TO 1967-68

		1963–64	*1964–65*	*1965–66*	*1966–67*	*1967–68*
Number of factories(*a*)		170	187	217	238	242
Average number of employed(*b*)—						
Males		2,236	2,634	2,896	2,992	3,007
Females		458	593	599	639	709
Persons employed		*2,694*	*3,227*	*3,495*	*3,631*	*3,716*
Salaries and wages paid(*c*)—						
Males	$'000	5,666	7,854	8,819	9,306	9,968
Females	,,	607	848	1,047	1,177	1,317
Total salaries and wages paid	,,	*6,273*	*8,702*	*9,866*	*10,483*	*11,285*
Value of power, fuel, etc., used(*d*)	,,	502	644	760	735	830
Value of materials used(*e*)	,,	8,428	11,440	13,349	14,918	16,382
Value of production(*f*)	,,	11,097	14,060	17,418	18,860	19,372
Value of output(*g*)	,,	20,026	26,145	31,528	34,514	36,583
Value of land and buildings(*h*)	,,	11,669	20,583	21,891	22,779	23,410
Value of plant and machinery(*h*)	,,	5,103	9,682	10,134	10,368	10,023

(*a*) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (*b*) Average over whole year: includes working proprietors. (*c*) Excludes amounts drawn by working proprietors. (*d*) Includes water and lubricating oil. (*e*) Includes also containers, etc., tools replaced and repairs to plant. (*f*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*g*) Value of goods produced including amounts received for repair work and other work done. (*h*) Depreciated or book values at end of year including estimated value of rented premises and machinery.

Transport and communication

Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 5 miles long. This line was opened for goods traffic on 25 May 1914 and for passenger traffic on 15 October 1923. Direct or linking services operate between Canberra and Sydney and Canberra and Melbourne. Two airlines provide many services daily each way on the Sydney-Canberra-Melbourne route. Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia. The total length of roads in the Territory at 30 June 1969 was: bitumen and concrete, 571 miles; gravel, 242 miles; other formed roads, 36 miles; total, 849 miles. There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station, and two television stations, ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station.

Social

See also the chapter Education, Cultural Activities and Research.

Education

The *Education Ordinance* 1937–1966 provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of Education and Science is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides teaching staff. It is reimbursed for expenses incurred.

At 1 August 1969 there were nine government secondary schools in the Australian Capital Territory providing courses proceeding to the Higher School Certificate. Thirty schools provided courses at infants and primary levels, three of these being in rural districts and one in the Jervis Bay area. There were also a school for mentally handicapped children, and a school for physically handicapped children located at Canberra Hospital. In addition, classes for deaf children were located at Ainslie and Mawson primary schools; and classes for mildly mentally handicapped children at Ainslie, Mawson, and Narrabundah primary schools. There is also a therapy clinic for children with speech defects, and a clinic for educational guidance. A further two primary schools and one secondary school are scheduled to commence at the beginning of the 1971 school year. At 1 August 1969 there were 15,303 pupils enrolled in the primary grades of government schools, and 7,559 pupils in secondary forms of government schools.

At 1 August 1969 there were twenty non-government schools in Canberra including six secondary schools which provide courses leading to the Higher School Certificate. At 1 August 1969, 5,381 pupils were enrolled in the primary grades of non-government schools and 3,300 pupils were enrolled in the secondary forms of non-government schools.

Forty-two pre-school centres, including two in the Jervis Bay area and a mobile unit which visits outlying areas of the A.C.T. provide pre-school facilities for approximately 2,750 children between the ages of three and five years. Pre-school education is also provided for deaf children.

The Canberra Technical College, which follows generally the curriculum set by the New South Wales Department of Technical Education, provides trade, post-trade, certificate, and some hobby courses. In 1969 the Technical College provided instruction in one hundred courses in twenty-one different schools of study. Student enrolments in 1969 were 6,105.

The Canberra School of Music provides a Diploma Course and individual study in a range of instruments and voice. At 30 June 1969 enrolments totalled 580.

For information about the Australian National University, refer to the section on universities, on page 644 in Chapter 20, Education, Cultural Activities and Research.

The Canberra College of Advanced Education was established following a decision by the Commonwealth Government in October 1966 to accept the recommendations of a committee of enquiry into the need for a college of advanced education in the Australian Capital Territory. The College is organised into schools and in 1970, courses were offered in the School of Administrative Studies, the School of Applied Science and the School of Liberal Studies. Courses in the School of Teacher Education will commence in 1971. It is envisaged that additional schools will be established as other specialised fields of study are introduced.

Health

The Canberra Hospital serves the population of Canberra and surrounding districts. At 30 June 1969 it had 611 beds, a visiting medical staff of 148, 27 salaried medical staff, and a nursing staff of 720. For further information about health services in the Australian Capital Territory *see* the Public Health chapter in Year Book No. 53 (pages 549–50) and, for recent administrative changes, in this Year Book (page 431).

Justice

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. There is an Australian Capital Territory Police Force, which at 30 June 1970 numbered 290, including the Commissioner and Superintendent. Of the total, 114 were engaged in the General Duties Branch, including one at Jervis Bay and two caring for the Police Citizens Boys' Club. The Traffic Branch comprised 75 members, including the specialised water police and those involved in accident investigation. There were 32 in the Criminal Investigation Branch, containing a Women Police Section of 5. There were also 57 in the Planning and Research Branch and three in the Special Branch. The Recruitment and Training Branch had a staff of seven.

Finance

In the following table the receipts and expenditure of the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions relating to the Australian Capital Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Forestry, Australian Capital Territory Housing, Australian Capital Territory Transport and Australian Capital Territory Suspense. In addition, details of the financial transactions of the following semi-governmental authorities are also covered: Australian Capital Territory Electricity Authority, Commonwealth Brickworks, National Capital Development Commission, and the Canberra Theatre Trust. Revenue derived by the Commonwealth from income taxes, sales tax, etc., levied in the Australian Capital Territory and expenditure by the Commonwealth in the Australian Capital Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE 1964-65 TO 1968-69

($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
RECEIPTS					
Taxation—					
Motor registration	540	604	669	760	890
Liquor tax	146	170	197	226	259
Other	698	199	831	649	633
Interest, rent, etc.	1,256	1,631	1,963	2,128	2,206
Public enterprises income	5,714	6,143	6,776	7,514	8,466
Net sale of semi-government securities	608	225	533	707	325
Other receipts—					
Net charge to Commonwealth budget	40,008	46,516	57,696	62,669	63,246
Other(*a*)	−514	151	2,122	1,149	969
Total receipts	**48,456**	**55,638**	**70,787**	**75,801**	**76,994**
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	528	700	926	1,286	1,428
Education	4,044	4,451	5,254	6,163	7,313
Public health and welfare	2,310	2,992	3,977	4,494	4,761
Other	5,764	6,857	7,689	7,912	9,385
Capital expenditure on new assets and stocks—					
Education	2,772	3,507	4,652	4,760	4,732
Cultural and recreational facilities	2,910	2,755	3,574	4,426	203
Public health and welfare	2,584	1,950	1,090	236	384
Water supply and sewerage	2,822	3,395	11,625	10,316	6,961
Roads and bridges	6,450	10,156	9,946	10,417	14,198
Power, fuel and light	1,346	1,675	3,188	2,838	2,162
Housing	7,724	8,814	6,637	8,038	9,838
Other	11,830	10,281	8,839	11,811	15,772
Net purchase of existing assets(*b*)	−17,340	−12,326	−7,462	−7,745	−12,560
Cash benefits	50	134	139	149	144
Interest paid	186	257	260	310	339
Net advances for housing	14,400	9,801	10,281	10,232	11,443
Grants towards private capital expenditure	76	237	170	159	491
Total expenditure	**48,456**	**55,638**	**70,787**	**75,801**	**76,994**

(*a*) Includes movements in cash, investments, etc. (*b*) Minus sign (−) denotes excess of receipts (from sales) over expenditures on, or purchases of, existing assets, including housing.

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29°S., longitude 168°E. approximately. Its total area is approximately 14 square miles, the island being about 5 miles long and 3 miles wide. It is 1,035 miles from Sydney and 660 miles from Auckland. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 45° and 81°F. with a mean of 68°F. The average annual rainfall is 56 inches.

After serving as a penal station from 1788 to 1813 and from 1825 to 1855, Norfolk Island in 1856 became the home of the remaining descendants of the *Bounty* mutineers. The estimated population at 30 June 1969 was 1,377.

Administration

In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, it was accepted by the Commonwealth Parliament as a Territory of Australia. It is controlled by the Minister for External Territories through an Administrator. The Norfolk Island Council is established pursuant to the *Norfolk Island Act* 1957–1967 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960–1970. The Council may consider and tender advice to the Administrator on any matter affecting the peace, order and good government of Norfolk Island, and must be consulted on certain legislative and financial matters. The Council comprises the Administrator as *ex officio* chairman and voting member and eight members elected biennially.

Economic activity

The major economic activities of the island are the tourist trade, primary production, and Government instrumentalities.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and production of bean seed, formerly the major export, has declined rapidly since 1962–63.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. Owing to a marked scarcity of whales after 1961, however, the station was closed down.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

Tourists. Regular sea and air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. There are at present, apart from flats and unlicensed guest houses, hotels and licensed guest houses, and further accommodation is being built to meet the steadily increasing number of visitors.

Employment. A large proportion of the population derives its income from various aspects of the tourist industry including the operation of hotels and duty-free stores. The Commonwealth Government provides services through staff from the Department of Civil Aviation and Interior (Meteorological Branch) and teachers are seconded by the N.S.W. State Education Department. A number of clerical and other positions are available to islanders in the Norfolk Island Administration. Very few people rely for their income entirely on agricultural pursuits.

Trade, transport and communication

Imports to Norfolk Island since the 1939–45 War have risen from $65,000 in 1945–46 to $2,606,000 in 1968–69. In 1968–69 the major proportion ($1,628,000) came from Australia, while New Zealand and the Pacific Islands supplied $354,000. Exports rose from $18,500 in 1945–46 to $420,000 in 1960–61, but declined, after whaling ceased in 1962–63 and in 1968–69 amounted to $294,000. Exports to Australia, the principal market, amounted to $229,000, while exports to New Zealand and to Pacific Islands amounted to $54,000. No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are the produce or manufacture of Norfolk Island, shipped direct to Australia, and not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately six-week intervals from Sydney via Norfolk Island to the New Hebrides and Solomon Islands, and thence back to Brisbane and Sydney. A service linking Sydney and Noumea includes a call at Norfolk Island on the outward voyage about every three weeks. Shipping between the island and New Zealand is infrequent.

A passenger and air freight service between Sydney and Norfolk Island is operated by Qantas Airways Ltd twice a week, and more frequently in peak periods. The service extends to New Zealand under charter to Air New Zealand Ltd.

There are approximately fifty miles of motor road on the island. A substantial section of the population possesses private motor cars, and taxi-cab and bus services are available.

An automatic telephone service is being established. A radio telephone service to Sydney is also being established. A local broadcasting service is operated by the Administration.

Education

Education is free and compulsory up to the age of fifteen years. The school, which is conducted by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from kindergarten to the School Certificate examination. The teachers are provided by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30 June 1969 was 273.

Bursaries are available for pupils who wish to attend a mainland school either to continue their studies beyond the School Certificate level or undertake high school courses not available on the Island. Trainee scholarships are available for pupils who have left school and wish to undertake apprenticeship or similar training away from the Island.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of this Court is exercised by one judge sitting in Court or, to the extent and in the cases provided by or under ordinance, sitting in Chambers. The jurisdiction of the Court of Petty Sessions is exercised by Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal items of revenue and expenditure for the five years 1964–65 to 1968–69 were as follows.

NORFOLK ISLAND: REVENUE AND EXPENDITURE, 1964–65 TO 1968–69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
REVENUE					
Commonwealth subsidy	67	66	66	66	66
Customs duties	55	85	90	110	105
Sale of liquor	34	41	53	56	61
Post office	55	174	138	122	260
All other	33	41	50	71	87
Total revenue	**245**	**406**	**397**	**425**	**579**
EXPENDITURE					
Administrative	55	72	73	89	104
Miscellaneous services	21	22	27	20	25
Social expenditure	68	70	97	126	142
Repairs and maintenance	20	27	66	67	87
Capital works and services	55	57	126	232	87
Postal services	16	33	32	59	56
Other business undertakings	6	9	7	7	. .
Total expenditure	**241**	**289**	**428**	**600**	**501**

PAPUA AND NEW GUINEA

The information under this heading is applicable to both the Territory of Papua and the Trust Territory of New Guinea. For details of the respective Territories *see* pages 1005 (Papua) and 1007 (New Guinea) and following pages. The sections on pages 983-9 have been prepared by the Director of the Commonwealth Bureau of Meteorology.

General description

Geographical position

The Territory of Papua and New Guinea includes the Territory of Papua and the Trust Territory of New Guinea. The total area of approximately 180,000 square miles lies in the equatorial zone between latitudes 2° S. and 12° S. and longitudes 141° E. and 156° E. The Territory of Papua comprises south-east New Guinea and also the islands of the Trobriand, Woodlark, D'Entrecasteaux, and Louisiade groups. The Trust Territory of New Guinea extends from 2° S. to 8° S. and includes north-east New Guinea (also called 'the mainland'), Bismarck Archipelago (New Britain, New Ireland, Lavongai, Admiralty Islands), and Solomon Islands (Bougainville, Buka).

Geographical features

There is a high backbone mountain chain extending generally along the centre of the main island with coastal plains which widen in some areas, particularly in the Fly River Basin. The mountains, which are rugged, rise to 15,000 feet above sea level in some areas; the larger islands mostly have mountain backbones, some rising to about 10,000 feet. In many parts the highlands extend to the coast.

Weather and climate

The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, presents many variations. Generally speaking, the climate is hot and humid, except in the highlands where days are mild to warm and nights are cool. Mean temperatures vary little throughout the year, and there are no winter and summer seasons comparable to those of higher latitude.

The predominant seasonal feature of the Territory is the regular alternation between two major air-streams, the south-east trade winds and north-west monsoon. The 'south-east' season prevails approximately from May to October, and the 'northwest' season persists for a shorter period from about December to early April. Two short spells of calm weather occur between these two seasons.

Rainfall

There are great spatial variations in the amount of rainfall received over the Territory of Papua and New Guinea. The variations depend mainly upon the direction and speed of the air streams. These streams are moist, requiring only a small amount of lifting for condensation of water vapour to occur. Topography therefore has a dominating influence on the rainfall distribution.

Average annual rainfall

The table on page 985 shows the average annual and monthly rainfall for selected stations in the Territory. It may be seen that the spatial distribution of average annual rainfall varies greatly, being dependent mainly on topography in relation to prevailing winds. The annual averages vary from 39 inches at Port Moresby (township) to 227 inches at Kikori at the head of the Gulf of Papua. There are few rainfall observing stations above 6,000 feet, so that rainfall above that height must generally be estimated. The map on page 989 shows the rainfall distribution over the region for the year 1969.

Seasonal distribution of rainfall

Places in Papua such as Port Moresby, where the south-east trade wind does not blow directly onshore, have a dry season during May-October. Places such as Kikori have heavier rainfall during May–October because of the onshore south-east winds. In the Territory of New Guinea, where conditions are more equatorial, rainfall occurs throughout the year, but is heaviest in the November-April period at most places.

Variability of rainfall

There are marked variations from year to year in annual rainfall totals throughout the Territory At Port Moresby (township), for example, in forty-two years of record the annual rainfall has varied from 72 inches to 23 inches; at Daru in fifty-four years of record the annual rainfall has varied from 156 inches to 46 inches; and at Madang in forty years of record the variation has been from 180 inches to 92 inches. The table on page 986 shows the annual rainfall at Port Moresby and Lae for the years 1946 to 1968 inclusive.

Heavy rainfalls

Highest twenty-four hour rainfall registrations have included 21.60 inches at Pondo Plantation in New Britain and 17.60 inches at Cape Nelson on the east coast of the main island. Twenty-four hour falls greater than 15 inches have been recorded at a number of other stations in the Papua and New Guinea region. The highest twenty-four hour fall recorded in Australia was 36 inches at Crohamhurst, Queensland. All these registrations were for the restricted twenty-four hour period from 9 a.m. to 9 a.m. Higher falls, possibly approaching 30 inches, have probably occurred in the Territory in unrestricted periods of twenty-four consecutive hours.

Temperature

Although the Territory has no summer and winter seasons, it has a wide range in temperature because of elevation differences. For each month the mean daily maximum temperature decreases by about 2° F. and the mean daily minimum temperature by about 4° F. for each 1,000 feet increase in elevation up to 5,000 feet.

A table on page 986 shows temperature and humidity data for five lowland and two highland stations. Mount Hagen, elevation 5,500 feet, is the highest station for which temperature data are available. However, both day and night temperatures continue to decrease with elevation above this level.

Average seasonal temperature distribution

In the lowland areas there is a difference in temperature pattern between the areas south of the highlands and those to the north. In the south there is a tendency for temperatures to be lower in the May–October period than in the November–April period (e.g. Samarai). In the north there is little difference throughout the year (e.g. Madang). In the highlands, temperatures are appreciably lower than in the lowlands and are slightly lower in the middle of the year than they are at the beginning of the year (e.g. Goroka). The nights are cold in the highlands throughout the year; the mean daily minimum at Mount Hagen for July is 53.6° F.

Extreme temperatures

The highest air temperature recorded at Lae (in twenty years of record) was 101.7° F. and the lowest was 66.3° F.; at Port Moresby (in twenty-four years of record) the highest was 97.4° F. and the lowest was 57.3° F.; at Mount Hagen (in thirteen years of record) the highest was 88.0° F. and the lowest 35.0° F. The mean daily range of temperature is about 15° F. at lowland stations and 20° F. at highland stations up to 5,000 feet elevation.

Humidity

Humidity is high generally throughout the year. In the lowlands persistently high humidity in association with high temperatures is responsible for the human discomfort experienced. The average index of mean relative humidity for January and July is shown for selected stations in a table on page 986. This index has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the mean temperature. Being thus related to the mean temperature, this value of relative humidity is a good approximation to the daily mean.

In the lowland areas the average index of mean relative humidity (*see* table on page 986) is in the range 75-85 per cent throughout the year. There is little variation in the index from month to month at any station. This is in contrast with northern Australian localities where the south-east winds of the dry season result in low relative humidities. For example, Darwin's average index of mean relative humidity ranges from 81 per cent in February to 62 per cent in July.

In the highland areas up to 6,000 feet elevation the average index of mean relative humidity is within the range 70–80 per cent throughout the year. The lower temperatures experienced on the highlands relative to the lowlands result in conditions being generally more comfortable in the highlands.

Evaporation

The only evaporation data available are records for Port Moresby. These show that the mean monthly tank evaporation varies from 5–6 inches per month in the early part of the year to 6–7 inches per month in the latter part of the year. The average annual tank evaporation at Port Moresby over an eleven-year period was 73.59 inches. It is probable that evaporation is less than this value in the higher humidity areas.

Sunshine and cloud

Mean daily sunshine hours are recorded for each month at Port Moresby, and the figures show a variation from 6.1 hours per day in February and March to 8.4 hours per day in November. The mean daily amount of sunshine at Port Moresby for the year is 6.9 hours, which is significantly less than Darwin (8.4 hours) but comparable with Brisbane (7.5 hours).

At Port Moresby the mean cloud amount varies from 5.0 eighths per day in June to 6.9 eighths in February; at Lae the variation is from 6.1 eighths in May, June and October to 6.9 eighths in March. The mean daily cloud amounts for the year at Port Moresby and Lae are 5.8 and 6.5 eighths respectively, which are high in comparison with Darwin (3.1).

Winds

As mentioned previously the south-east trade winds prevail from May to October and the north-west monsoonal winds prevail from December to March over most of the region. However, the broad-scale wind pattern may be completely masked by the effects of local topography and land and sea breezes. The mean 9 a.m. and 3 p.m. wind speeds and prevailing directions are shown in the tables on pages 987–8 for Port Moresby and Lae.

At Port Moresby the mean winds are stronger during the period May-November than during December-April; for example, the 3 p.m. mean wind for August is 15.4 m.p.h. and for March is 7.6 m.p.h. The winds at 3 p.m. are much stronger than at 9 a.m.; for example, for the year the 3 p.m. mean wind is 11.5 m.p.h. and the 9 a.m. mean wind is 4.1 m.p.h. The prevailing direction of the wind is south-east during May-November and north-north-west to south-west during December-April.

At Lae the winds are mainly lighter than at Port Moresby. In the period May-October the winds at Lae are lighter than in the period November-April. The winds at 3 p.m. are greater than at 9 a.m. except in February. The prevailing direction is north-west at 9 a.m. and south-east at 3 p.m. throughout the year.

Storms and cyclones

The Papua and New Guinea region is subject to thunderstorm activity, squall lines and local storms throughout the year. Severe thunderstorms are frequent in the mountainous areas, but also occur in coastal lowlands. The main tropical cylcone belt lies to the south of the region, but occasionally a tropical cyclone affects the region, causing loss of life and property.

Climatological tables

The averages and extremes for a number of elements recorded at Port Moresby and Lae are given in the tables on pages 987–8. These tables generally follow the format given for Australian capital cities included in Chapter 2 of this Year Book, the observational data being for available years of record to 1968 inclusive unless otherwise stated. Some elements included in the Australian capital city tables have been omitted from the tables for Port Moresby and Lae because of the inadequacy of observational records.

TERRITORY OF PAPUA AND NEW GUINEA: AVERAGE MONTHLY AND ANNUAL RAINFALL FOR SELECTED STATIONS(*a*)

(Inches)

Station (lat. long.)	*Years of record*	*Jan.*	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Bwagaoia(*b*) (10° 41′ 152° 51′)	34	10.31	12.91	9.70	11.01	11.45	8.79	6.83	8.79	8.67	9.63	9.75	8.92	116.76
Daru(*b*) (9° 04′ 143° 12′)	55	11.06	10.17	12.94	12.24	8.74	4.06	3.31	2.16	1.70	2.18	4.46	8.47	81.49
Dogura(*b*) (10° 00′ 149° 55′)	42	9.20	8.31	8.63	5.85	3.70	3.57	2.94	2.50	3.05	2.80	3.41	4.35	58.31
Gobaragere(*b*) (9° 50′ 147° 45′)	33	7.43	6.98	7.85	8.56	4.30	3.49	1.66	2.17	2.37	3.07	5.12	6.88	59.88
Gusoeta(*b*) (8° 32′ 151° 4′)	35	16.22	15.59	15.48	12.51	12.71	11.85	12.16	12.07	11.44	9.73	11.58	10.72	152.06
Itikimuna(*b*) (9° 25′ 147° 29′)	38	12.76	11.26	14.05	14.64	10.75	6.79	4.76	7.01	8.40	11.23	12.61	12.86	127.12
Kairuku(*b*) (8° 51′ 146° 32′)	39	9.47	10.25	9.07	5.35	1.73	1.83	1.10	0.62	1.48	1.64	2.11	5.52	50.17
Kerema(*b*) (7° 57′ 145° 46′)	42	9.63	8.85	10.63	11.19	16.87	15.81	13.74	13.70	13.89	11.75	8.38	7.85	142.29
Kikori(*b*) (7° 25′ 144° 15′)	42	12.22	13.17	14.10	17.20	29.20	28.08	25.44	21.60	23.94	17.75	12.64	11.43	226.77
Kokoda(*b*) (8° 58′ 147° 43′)	34	13.17	13.91	14.13	13.29	10.51	7.04	6.82	8.51	10.52	12.46	16.44	14.47	141.27
Kokopo(*c*) (4° 20′ 152° 15′)	33	8.02	6.94	8.80	6.74	4.68	5.01	6.42	6.00	4.01	4.52	6.44	9.03	76.61
Kwikila(*b*) (9° 44′ 147° 44′)	36	6.70	5.47	7.13	6.10	3.27	2.26	1.73	1.90	2.52	2.13	2.62	4.67	46.50
Lindenhafen(*c*) (6° 15′ 150° 30′)	30	6.66	5.82	6.39	11.23	22.71	31.60	41.00	43.56	31.82	19.32	11.85	7.42	239.38
Madang(*c*) (5° 13′ 145° 47′)	41	13.13	12.31	14.82	17.47	15.03	9.65	7.30	4.89	5.65	9.86	14.61	14.63	139.35
Port Moresby(*b*)(*d*) (9° 26′ 147° 13′)	23	6.66	8.42	7.23	6.77	2.09	1.66	0.78	1.37	1.49	1.51	2.67	6.12	46.77
Samarai(*b*) (10° 37′ 150° 40′)	43	6.72	7.15	9.81	10.26	11.52	11.93	8.05	8.11	10.94	8.39	7.54	5.23	105.65

(*a*) With thirty or more years of record to 1968. (*b*) Papua. (*c*) New Guinea. (*d*) 23 years of record. *See* page 987.

RAINFALL: PORT MORESBY AND LAE, 1946 TO 1968

	Port Moresby (Papua)		*Lae (New Guinea)*	
Year	*Amount*	*No. of days*	*Amount*	*No. of days*
	in		in	
1946 . . .	61.79	137	(*a*)168.64	(*a*)248
1947 . . .	40.61	154	180.37	261
1948 . . .	45.82	138	179.26	267
1949 . . .	43.20	164	174.78	275
1950 . . .	47.67	137	158.51	251
1951 . . .	45.51	108	191.59	250
1952 . . .	54.88	150	165.58	274
1953 . . .	36.20	126	197.76	264
1954 . . .	46.49	118	173.70	277
1955 . . .	39.33	128	155.26	261
1956 . . .	56.60	141	122.39	233
1957 . . .	51.89	129	238.66	282
1958 . . .	46.02	107	190.02	250
1959 . . .	41.65	126	185.78	245
1960 . . .	34.17	116	167.50	260
1961 . . .	42.75	136	193.09	267
1962 . . .	43.98	133	182.84	261
1963 . . .	58.76	138	165.18	254
1964 . . .	55.02	151	163.10	244
1965 . . .	40.73	103	175.93	265
1966 . . .	41.25	116	206.19	291
1967 . . .	57.05	147	198.86	263
1968 . . .	44.44	116	185.68	265

(*a*) Incomplete for July and August.

TERRITORY OF PAPUA AND NEW GUINEA: TEMPERATURE AND RELATIVE HUMIDITY FOR SELECTED STATIONS

					Temperature °Fahr.				*Relative humidity*			
Station	*Lat.*	*Long.*	*Altitude (ft)*	*Years of record*	*Mean max. Jan.*	*Mean max. July*	*Mean min. Jan.*	*Mean min. July*	*Av. index of mean Jan. (a)*	*Av. index of mean July (a)*	*Mean 3 p.m. Jan.*	*Mean 3 p.m. July*
Daru(*b*) . .	9° 04′	143° 12′	26	1940–1968	88.8	82.6	75.1	73.0	(*f*)84	(*f*)83	. .	. .
Goroka(*c*) .	6° 04′	145° 24′	5,200	1952–1968	78.5	76.7	59.1	56.4	(*f*)75	(*f*)72	(*f*)56	(*f*)52
Kikori(*b*) . .	7° 25′	144° 15′	30	1917–1968	90.4	81.3	73.5	71.9	(*e*)83	(*e*)91	. .	. .
Madang(*c*) .	5° 13′	145° 47′	14	1951–1968	86.3	85.3	73.7	73.0	(*f*)85	(*f*)87	76	75
Mount Hagen(*c*)	5° 51′	144° 09′	5,500	1953–1965	76.2	73.8	55.9	53.6	(*e*)79	(*e*)80	(*d*)65	(*d*)69
Samarai(*b*) .	10° 37′	150° 40′	50	1956–1968	88.4	80.7	76.1	72.8	(*f*)81	(*f*)85	(*f*)74	(*f*)81
Wewak(*c*) .	3° 35′	143° 40′	15	1956–1968	86.4	86.5	73.4	72.9	(*f*)83	(*f*)85	(*f*)75	(*f*)74

(*a*) *See* text, page 984, for explanation of this index. (*b*) Papua. (*c*) New Guinea. (*d*) 1955–65. (*e*) To 1965. (*f*) To 1966.

CLIMATOLOGICAL DATA: PORT MORESBY (PAPUA)

(Jackson's Strip, Lat. 9° 26′ S., Long. 147° 13′ E., Height above M.S.L. 92 ft)

BAROMETER, WIND, EVAPORATION AND CLOUD

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m. bars)	Wind					Mean amount evaporation (in)	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)
		Average miles per hour		Highest gust speed (mph)	Prevailing direction			
		9 a.m.	3 p.m.		9 a.m.	3 p.m.		
No. of years of observations	23	5	5	17	5	5	11	19
January	1,007.0	3.4	8.3	55	NNW	SW	6.17	6.7
February	1,007.1	3.9	9.3	52	N	SW	5.14	6.9
March	1,007.4	2.6	7.6	49	N	W	5.47	6.6
April	1,008.1	1.7	7.7	40	NNW	SSE	4.92	6.0
May	1,008.5	3.3	10.8	43	SE	SSE	5.43	5.1
June	1,009.7	5.7	13.0	46	SE	SSE	5.46	5.0
July	1,009.9	6.7	14.5	46	SE	SE	5.85	5.3
August	1,009.9	5.8	15.4	47	SE	SSE	6.43	5.5
September	1,010.0	5.3	14.5	46	SE	SSE	6.67	5.5
October	1,009.1	5.3	15.0	46	SSE	SSE	7.52	5.3
November	1,008.1	2.8	12.2	38	SE	SSE	7.53	5.4
December	1,007.0	2.3	9.6	54	NNW	SW	7.00	6.0
Year Total	..	..	..	..	..	..	73.59	..
Year Averages	**1,008.5**	**4.1**	**11.5**	..	**SE**	**SSE**	..	**5.8**
Year Extremes	..	..	..	**55**	..	..	..	..

(a) Scale 0–8.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (° Fahr.)			Extreme shade temperature (° Fahr.)		Extreme temperature (° Fahr.)	Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Lowest on grass	
No of years of observations	24	24	24	24	24	13	13
January	89.8	73.3	81.6	97.2 11/64	68.8 27/49	65.3 21/66	6.2
February	88.8	73.1	81.0	97.0 12/47	65.8 17/57	62.2 3/68	6.1
March	88.9	72.9	80.9	95.8 26/46	65.0 23/61	58.0 31/66	6.2
April	88.0	72.5	80.3	93.6 5/46	62.3 11/46	56.6 1/66	7.0
May	87.9	72.6	80.3	92.9 2/64	58.1 28/53	59.0 18/66	7.4
June	86.5	71.4	79.0	93.0 25/58	58.0 23/54	54.0 29/65	7.0
July	86.0	70.7	78.4	92.0 11/64	57.3 8/46	50.8 30/65	6.6
August	86.3	71.3	78.8	92.8 12/58	58.6 14/61	50.3 31/67	6.8
September	87.3	72.1	79.7	94.6 17/65	58.0 10/61	48.0 1/67	6.8
October	89.4	72.9	81.2	95.9 4/65	61.3 11/55	52.2 5/65	7.4
November	90.4	72.7	81.6	97.3 11/65	62.1 10/67	55.0 4/63	8.4
December	90.4	73.3	81.9	97.4 16/67	67.2 1/63	62.9 16/67	7.3
Year Averages	**88.2**	**72.4**	**80.3**	.. ..	.. ..	.. ..	6.9
Year Extremes	..	..	..	**97.4 16/12/67**	**57.3 8/7/46**	**48.0 1/9/67**	..

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure mean 9 a.m. (m.bars)	Mean relative humidity % at 9 a.m.	Rainfall (inches)					Fog mean No. days
			Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of observations	23	23	23	23	23	23	23	23
January	28.1	77	6.66	17	18.30 1967	1.02 1950	4.18 26/67	3.3
February	28.5	81	8.42	19	17.08 1957	2.37 1947	5.54 14/49	3.8
March	28.4	80	7.23	18	17.42 1951	1.11 1950	4.42 16/51	7.2
April	28.6	81	6.77	15	28.65 1946	0.36 1966	12.89 12/46	7.7
May	28.2	79	2.09	8	7.35 1952	0.08 1958	3.02 18/60	6.9
June	26.4	78	1.66	6	12.33 1963	0.00 1957	8.06 5/63	3.7
July	25.2	77	0.78	6	2.75 1949	0.01 1958	1.33 1/52	2.5
August	25.0	75	1.37	7	5.43 1953	0.02 1959	1.94 22/53	2.4
September	25.4	73	1.49	7	13.53 1958	0.00 (a)	5.90 5/58	1.9
October	26.2	69	1.51	7	7.12 1948	0.06 1951	2.13 31/64	2.4
November	26.4	68	2.67	8	9.22 1952	0.00 1965	3.56 29/54	3.3
December	27.6	73	6.12	13	10.57 1954	0.99 1967	4.83 29/65	2.9
Year Totals	..	..	**46.77**	**131**	.. ..	.. ..	.. ..	**48.0**
Year Averages	**27.0**	**76**	..	**11**	.. ..	.. ..	.. ..	..
Year Extremes	..	..	..	..	**28.65 4/1946**	**0.00 (b)**	**12.89 12/4/46**	..

(a) 1948 and 1950. (b) June 1957, September 1948 and 1950, and November 1965.

CLIMATOLOGICAL DATA: LAE (NEW GUINEA)

(Meteorological Office: Lat. 6° 44′ S., Long. 147° 00′ E., Height above M.S.L. 25 ft)

BAROMETER, WIND AND CLOUD

Month	*Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)*	*Wind — Average miles per hour — 9 a.m.*	*Wind — Average miles per hour — 3 p.m.*	*Wind — Highest gust speed (mph)*	*Wind — Prevailing direction — 9 a.m.*	*Wind — Prevailing direction — 3 p.m.*	*Mean amount of clouds 9 a.m., 3 p.m., 9 p.m.(a)*
No of years of observations	23	5	5	13	5	5	20
January	1,006.8	7.7	8.3	51	NW	SE	6.8
February	1,006.8	8.1	7.6	43	NW	SE	6.8
March	1,007.2	6.8	7.3	40	NW	SE	6.9
April	1,008.4	4.6	7.2	40	NW	SE	6.5
May	1,009.5	2.8	6.5	36	NW	SE	6.1
June	1,010.5	2.7	6.2	41	NW	SE	6.1
July	1,011.0	2.0	6.6	36	NW	SE	6.5
August	1,011.0	2.2	6.8	40	N	SE	6.5
September	1,010.9	2.3	7.9	38	NW	SE	6.3
October	1,010.1	2.9	7.9	40	NW	SE	6.1
November	1,008.5	4.6	8.7	45	NW	SE	6.3
December	1,007.4	6.0	8.4	41	NW	SE	6.7
Year { Averages	1,009.0	4.4	7.5	..	NW	SE	6.5
Year { Extremes	..	..	..	51	..	..	..

(*a*) Scale 0–8.

TEMPERATURE

Month	*Mean temperature (° Fahr.) — Mean max.*	*Mean temperature (° Fahr.) — Mean min.*	*Mean temperature (° Fahr.) — Mean*	*Extreme shade temperature (° Fahr.) — Highest*	*Extreme shade temperature (° Fahr.) — Lowest*
No. of years of observations	20	20	20	20	20
January	87.9	74.7	81.3	100.8 20/59	69.2 7/60
February	88.1	74.7	81.4	99.1 14/57	70.0 24/62
March	87.4	74.6	81.0	101.7 6/56	71.1 16/56
April	86.1	73.9	80.0	93.0 4/56	70.4 22/66
May	85.1	73.2	79.2	91.8 24/52	67.0 30/53
June	83.4	72.2	77.8	92.2 8/58	67.0 20/53
July	81.9	71.5	76.7	89.9 16/64	66.7 31/65
August	82.2	71.6	76.9	90.4 28/64	67.0 27/55
September	83.6	71.9	77.8	90.0 12, 13/50	66.3 13/61
October	85.3	72.6	79.0	95.3 31/49	66.4 4/65
November	86.6	73.4	80.0	94.0 30/61	69.6 (*a*)
December	87.2	74.2	80.7	96.1 24/59	68.5 19/64
Year { Averages	85.4	73.2	79.3	.. ..	.. ..
Year { Extremes	..	..	..	**101.7 6/3/56**	**66.3 13/9/61**

(*a*) 13/1965 and 11/1968.

HUMIDITY, RAINFALL AND FOG

Month	*Vapour pressure mean 9 a.m. (m.bars)*	*Rainfall (inches) — Mean monthly*	*Rainfall (inches) — Mean No. of days of rain*	*Rainfall (inches) — Greatest monthly*	*Rainfall (inches) — Least monthly*	*Rainfall (inches) — Greatest in one day*	*Fog mean No. days*
No. of years of observations	23	24	24	24	24	24	23
January	28.0	11.41	21	20.54 1964	4.21 1958	7.84 9/59	0.1
February	28.5	9.35	19	15.88 1967	2.09 1957	5.26 8/53	0.1
March	28.3	12.46	21	20.63 1952	5.52 1968	6.38 10/52	0.1
April	28.7	15.44	22	23.71 1955	9.32 1968	7.84 15/53	0.0
May	28.3	15.80	22	33.08 1957	2.65 1956	6.52 17/61	0.1
June	26.5	15.72	22	30.32 1965	4.51 1964	8.90 4/51	0.0
July	25.4	20.47	25	41.66 1953	5.63 1956	11.76 16/53	0.1
August	25.0	20.38	24	33.99 1957	6.32 1951	10.18 14/47	0.0
September	25.6	18.19	23	29.12 1950	7.58 1960	6.16 10/51	0.0
October	26.5	14.17	21	26.20 1957	4.82 1956	5.77 20/63	0.1
November	26.7	12.69	21	22.73 1948	5.04 1956	7.26 2/45	0.0
December	27.7	13.56	21	23.81 1957	6.06 1951	8.96 16/68	0.0
Year { Totals	..	**179.61**	**262**	.. ..	.. ..	.. ..	**0.6**
Year { Averages	27.1	..	..	.. ..	.. ..	.. ..	..
Year { Extremes	..	..	..	**41.66 7/1953**	**2.09 2/1957**	**11.76 16/7/53**	..

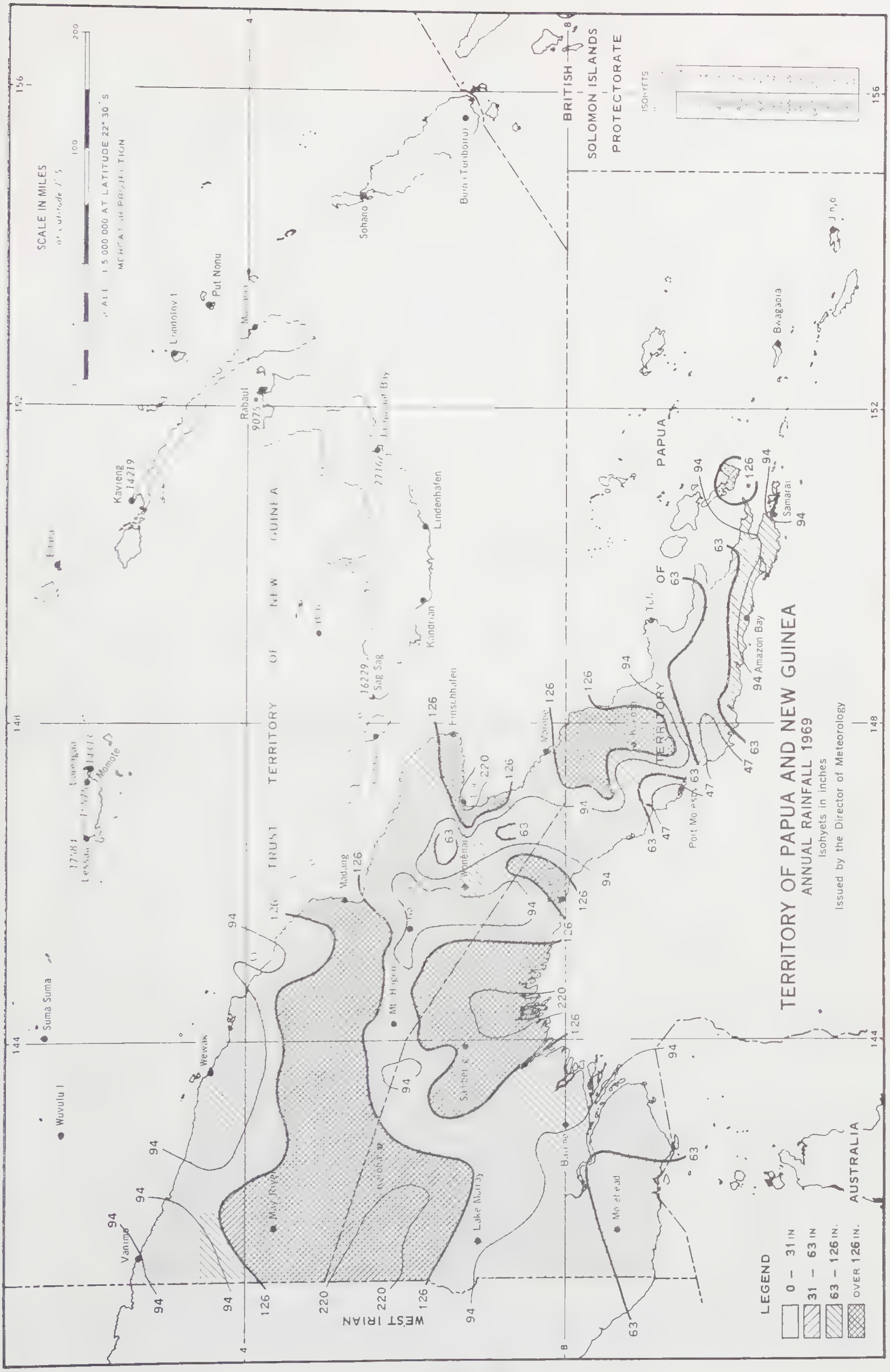

TERRITORY OF PAPUA AND NEW GUINEA
ANNUAL RAINFALL 1969
Isohyets in inches
Issued by the Director of Meteorology
SCALE IN MILES
SCALE 1:5 000 000 AT LATITUDE 22° 30' S
MERCATOR PROJECTION
LEGEND
0 – 31 IN
31 – 63 IN
63 – 126 IN.
OVER 126 IN.
TRUST TERRITORY OF NEW GUINEA
TERRITORY OF PAPUA
BRITISH SOLOMON ISLANDS PROTECTORATE
WEST IRIAN
AUSTRALIA
Vanimo
Wewak
Wuvulu I
Suma Suma
Madang
Mt Hagen
Lake Murray
May River
Moorehead
Port Moresby
Samarai
Amazon Bay
Finschhafen
Sag Sag
16229
Lindenhafen
Kandrian
Rabaul
9075
Kavieng
14219
Put Nonu
Sohano
Buin (Tonolei)
Bwagaoia
Momote
Lessau
17381
Wonenai
Kerema
Daru
94
126
220
63
47
4
8
144
148
152
156

PLATE 52

Population

Censuses of the non-indigenous population of the Territory of Papua and New Guinea have been taken in conjunction with censuses of the Commonwealth of Australia. For the indigenous population of the Territory of Papua and New Guinea, estimates of size, geographic location, and the broad age distribution of the population were available from the results of the Department of District Administration census (formerly known as the Tax Census). This was conducted over most of the Territory, but was continuous rather than conducted at a common date for all areas covered. No regular pattern of operations was adopted, although once the census had been taken in an area it was in general repeated fairly frequently. Although these estimates were of great value, the limitations of the information on population characteristics and the lack of simultaneous collection for all areas made them insufficient for many purposes. The 1966 census covered both indigenous and non-indigenous population, and thus superseded the traditional census of non-indigenes.

Figures for the non-indigenous population as enumerated at censuses held in conjunction with Commonwealth censuses and estimates of the indigenous population based on the Department of District Administration censuses are set out below.

TERRITORY OF PAPUA AND NEW GUINEA: POPULATION AT CENSUSES, 1921 TO 1966

Year	*Indigenous*					*Non-indigenous*		
	Enumerated							
	Males	*Females*	*Persons*	*Persons estimated*	*Total persons*	*Males*	*Females*	*Persons*
				PAPUA				
1921 . .	59,825	52,687	112,512	..	..	1,408	670	2,078
1933 . .	..	..	170,836	..	..	1,232	941	2,173
1941 . .	..	..	..	..	..	..	..	..
1947 . .	..	..	..	..	..	2,057	1,182	3,239
1950 . .	117,455	104,474	221,929	146,630	368,559	..	..	..
1954 . .	151,464	134,732	286,196	202,200	488,396	3,867	2,446	6,313
1961 . .	236,676	209,632	446,308	67,340	513,648	5,490	4,304	9,794
1966 . .	310,153	281,806	591,959	..	591,959	8,307	6,070	14,377
				NEW GUINEA				
1921 . .	(*a*)100,445	(*a*)66,276	(*a*)166,721	..	..	2,502	671	3,173
1933 . .	218,218	182,911	401,129	..	..	3,709	1,507	5,216
1941 . .	324,830	318,988	(*b*)684,284	300,000	984,284	..	..	..
1947 . .	..	..	..	..	..	4,369	1,831	6,200
1950 . .	415,939	354,116	770,055	301,050	1,071,105	..	..	..
1954 . .	538,113	472,480	1,010,593	184,714	1,195,307	7,201	4,241	11,442
1961 . .	721,806	647,277	1,369,083	64,300	1,433,383	9,158	6,378	15,536
1966 . .	810,153	748,205	1,558,358	..	1,558,358	11,746	8,546	20,292

(*a*) 1920; figures for 1921 not available. (*b*) Includes 34,087 indentured labourers, 1,127 native constabulary, 4,823 attending approved mission schools, and 429 patients at Anelaua Leprosarium and Taskul Observation Colony (New Ireland), for which particulars of sex are not available.

The total indigenous population of Papua and New Guinea at the 1966 census was 2,150,317 persons, and the total non-indigenous, 34,669 persons. Estimated totals for 30 June 1969 are 2,312,064 and 43,391 persons respectively. *See* pages 1005 and 1008 for further details.

The population (indigenous and non-indigenous) of the major towns at the census, June-July 1966, was as follows: Port Moresby, 41,848; Lae, 16,546; Rabaul, 10,561; Wewak, 8,945; Madang, 8,837; Goroka, 4,826; Daru, 3,663; Mount Hagen, 3,315; Bulolo, 2,724; Lorengau, 2,446; Samarai, 2,201; Kavieng, 2,142. A population count held in conjunction with the setting up of a Local Government Electoral Roll in February-April 1970 showed that the population of Port Moresby was 56,206; Lae, 24,339; Madang, 11,151 and Rabaul 20,307.

Population Census, 1966

The census was conducted over the period June-July 1966 and covered both indigenous and non-indigenous populations. For census purposes the indigenous population comprised the aboriginal peoples of the Territory of Papua and New Guinea, Australia, New Zealand, and the other islands of Polynesia, Melanesia, and Micronesia, and all persons descended from these aboriginal peoples to the extent of more than one half. The non-indigenous population comprised all persons not covered by the definition of the indigenous population given above. The Census completely enumerated virtually all the non-indigenous population, together with all the indigenous population located in areas outside rural villages. The rural village population was estimated by means of a representative sample of approximately 10 per cent of rural villages. Consequently the figures published for the population of rural villages are estimated of total figures based on a representative sample, while those published for other areas are totals based on complete enumeration. Totals for a District or Territory as a whole are the sums of these estimated and actual figures.

A short description of the development operations undertaken before the 1966 census and of the actual census operations is given in Year Book No. 53, pages 141–2. A description of Methods and definitions used can be found in *Population Census, 1966—Preliminary Bulletin No. 20: Summary of Population* issued by the Bureau of Statistics, Konedobu, Papua.

For details of selected characteristics of Population Census 1966 *see* Year Book No. 55, pages 1165–69.

Administration

The *Papua-New Guinea Provisional Administration Act* 1945–1946, which provided for the transfer back of control from the military authorities to civil authorities after the 1939-45 War, was repealed by the *Papua and New Guinea Act* 1949, which came into force on 1 July 1949. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, a Legislative Council and an Executive Council, one Supreme Court, and one Public Service.

For an outline of the development of the Legislative and Executive (later Administrator's) Councils between 1949 and 1963, *see* Year Book No. 51, page 117.

In May 1963 the Commonwealth Government passed an amendment to the Papua and New Guinea Act, making provision for a House of Assembly of sixty-four members to replace the Legislative Council. The house then consisted of ten official members appointed by the Governor-General on the advice of the Administrator, forty-four members elected by the people of the Territory on a common roll in forty-four open electorates, and ten non-indigenous persons elected on a common roll in ten special electorates comprising one or more open electorates. The first elections for the House of Assembly were held in February-March 1964, and the inaugural meeting of the new House was convened on 8 June 1964.

The 1963 Act also increased the membership of the Administrator's Council from seven to eleven, seven of whom must be elected members of the House of Assembly.

In October 1966 the Commonwealth Parliament passed a further amendment to the Papua and New Guinea Act, providing for an increase in the membership of the House of Assembly to ninety-four, sixty-nine members representing open electorates, fifteen from regional electorates and ten official members.

The second general election for the House of Assembly was held from 17 February–16 March 1968, and the Second House was convened on 4 June 1968. The Ministerial Nomination Committee in conjunction with the Administrator chose fifteen elected members who were appointed to seven Ministerial Member and eight Assistant Ministerial Member positions.

The *Papua and New Guinea Act* 1968 provides for the Administrator's Council to become the Administrator's Executive Council, deciding major matters of Territory policy. In June 1968 it had its first meetings. It consists of the Administrator, the seven Ministerial Members, three official Members, and a twelfth Councillor who is an elected M.H.A. but a non-office holder.

Local government was introduced in 1949 by the Native Village Councils Ordinance which was replaced by the *Local Government Ordinance* 1963. The Administrator may establish by proclamation local government councils with authority in defined areas.

Judiciary

The courts which exercise jurisdiction within the Territory are: the Supreme Court of the Territory of Papua and New Guinea, District Courts, Local Courts, Children's Courts and Wardens' Courts.

The Supreme Court is the highest judicial authority and has unlimited criminal and civil jurisdiction. Appeals lie from decisions of a single judge to the Full Court of the Supreme Court and, subject to prescribed conditions, from decisions of the Full Court to the High Court of Australia.

District Courts have criminal jurisdiction to try offences punishable by up to 12 months' imprisonment, and to conduct preliminary hearings in respect of offences punishable by more than 12 months' imprisonment. They also exercise civil jurisdiction over claims for amounts up to $2,000. Local Courts have criminal jurisdiction over summary offences and may impose penalties not greater than a fine of $100 or six months' imprisonment, plus civil jurisdiction over matters involving up to $200. Children's Courts have jurisdiction over all offences by persons under the age of 16 years, except the most serious offences, and in affiliation and other child welfare cases. Wardens' Courts exercise jurisdiction over offences against mining laws and civil cases concerning mining or mining lands.

In addition, there is the Land Titles Commission set up under the *Land Titles Commission Ordinance* 1962–1969 to inquire into and determine rights in land, particularly native land. The Commission has the particular function under the *New Guinea Land Titles Restoration Ordinance* 1951–1968 to inquire into and determine claims to interest in land where the official records were lost or destroyed as a result of the Japanese invasion of New Guinea. For the purposes of the latter Ordinance, the Jurisdiction of the Commission is exercised by the Chief Commissioner (who must be qualified to be a judge of the Supreme Court) sitting with two Senior Commissioners.

Agriculture and animal industry

Soils

Although many parts of Papua and New Guinea are covered by skeletal soils unsuitable for agriculture, there are extensive areas in all districts where fertile soils occur suitable for growing a variety of crops. Soils on the coastal plains consist mainly of alluvium and podsolised alluvium. The coastal swamp soils, of which there are extensive areas in the delta plains of the Sepik and Fly rivers and intermittently around the coasts and along the lower reaches of other rivers, are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the central plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the valley occupied by the Ramu and Markham Rivers.

Land tenure

The *Land Ordinance* 1962 of the Territory of Papua and New Guinea, which came into operation in 1963, replaced much land legislation previously in force separately in the two Territories. This simplification in legislation was a major step towards applying uniform principles to land tenure throughout the whole of the Territory of Papua and New Guinea. All land in the Territory other than native land or land subject to any estates, rights, titles, or interests in force from time to time is Administration land.

There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas some rights remain in the landholding group, and individuals within the group have limited rights or use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by indigenes, the Government has laid down the following broad principles of policy.

> The ultimate and long-term objective in Papua and New Guinea is to introduce throughout the Territory a single system of land holding regulated by the central Administration by statute, administered by the Department of Lands of the central Administration and providing for secure individual registered titles after the pattern of the Australian system.
>
> Only the Administration working through the Department of Lands, Surveys and Mines and through the Registrar of Titles may issue and register land titles.
>
> Land subject to native custom remains subject only to native custom until it is taken out of custom either by acquisition by the Administration or by a process, provided for by the *Land (Tenure Conversion) Ordinance* 1963–1968, of conversion of title to an individual registered title. Upon either acquisition or conversion of title, compensation is provided in respect of extinction of rights under native custom.

Land held under native custom may not be acquired outside of native custom by other than the Administration. Land may not be acquired by the Administration except for prescribed public purposes unless the native owners are willing to sell and the Administration is convinced, through its Department of District Administration, that the land is not required by them, and conversion of title from native custom to individual registered title may take place only if all those interested in the land under native custom consent to conversion and the method of conversion.

The services of Commissioners under the *Land Titles Commission Ordinance* 1962–1970 are used, as a first priority, on investigations into claims by the Administration that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Administration, on settlement of disputes about the ownership of land held under native custom, and on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The Commissioners, as opportunity offers, continue investigations into the holding of land under native custom; the results of such investigations are recorded for use in connection with future acquisitions or conversions of title.

The legislation and administrative steps necessary to put the remainder of this policy into effect are well advanced.

Suitable crops

Most tropical crops can be grown in Papua and New Guinea. Those of commercial importance at present are coconuts, cocoa, rubber, coffee, tea, peanuts, pyrethrum and passion fruit. Major developments in the production of oil-palm are under way. This crop is expected to be of future economic significance.

Non-indigenous rural production

In 1967–68 there were 1,240 holdings in use by non-indigenous persons, 341 being in Papua and 899 in New Guinea. The total area of these holdings was 1,026,882 acres, 273,835 in Papua and 753,047 in New Guinea. The following tables summarise the information available for principal activities.

TERRITORY OF PAPUA AND NEW GUINEA
NUMBER OF HOLDINGS, AREA, PRODUCTION AND NEW PLANTINGS
1965 TO 1969

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua and New Guinea)

Year ended 31 March—	*Holdings*	*Area under crop(a)*	*Trees(a)*	*Production*	*New plantings*	
					Area	*Trees(b)*
Coconuts—		acres	'000	tons	acres	'000
1965	670	262,039	11,995	85,034	4,013	272
1966	667	264,391	12,006	90,209	5,512	377
1967	683	269,127	12,704	81,159	5,208	460
1968(*c*)	681	270,176	12,809	86,736	4,902	586
1969(*c*)	685	271,623	12,972	89,115	4,062	382
Cacao—						
1965	435	116,981	19,792	14,326	7,058	1,835
1966	439	122,226	20,696	14,427	8,354	1,870
1967	447	126,147	21,830	15,059	4,981	1,366
1968(*c*)	447	129,706	21,400	18,092	5,446	1,749
1969(*c*)	443	133,235	22,180	18,134	5,095	1,690
Coffee—						
1965	261	12,228	7,860	3,374	1,345	1,162
1966	257	13,415	8,779	3,874	1,323	1,254
1967	248	14,365	9,912	4,492	1,090	1,212
1968(*c*)	249	14,817	10,004	4,705	810	937
1969(*c*)	237	14,685	9,798	6,196	664	828
Rubber—						
1965	70	33,317	3,768	5,183	1,238	249
1966	81	35,417	3,998	5,333	1,847	344
1967	86	37,043	4,177	5,437	1,260	305
1968(*c*)	89	35,878	4,126	5,711	484	167
1969(*c*)	83	33,964	3,901	5,850	471	134

(*a*) Includes mature and immature areas. (*b*) Includes replacements. (*c*) 30 June

TERRITORY OF PAPUA AND NEW GUINEA: AREA UNDER PRINCIPAL CROPS AND CROP PRODUCTION, YEAR ENDED 30 JUNE 1969

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua and New Guinea)

	Recorded area in acres				*Recorded production*			*Average yield per productive acre*		
Crop	*Papua*	*New Guinea*	*Total*	*Unit*	*Papua*	*New Guinea*	*Total*	*Papua*	*New Guinea*	*Total*
Permanent crops—										
Copra—										
Plantation	33,951	237,672	271,623	ton	9,659	79,456	89,115	0.31	0.39	0.38
Trade(*a*)	..	..	..	,,	445	4,674	5,119	..	..	..
Coconuts, for use as such	..	..	..		34	420	454	..	..	..
Cacao—										
Plantation	10,219	123,016	133,235	ton	1,048	17,086	18,134	0.12	0.18	0.17
Trade(*a*)	..	..	..	,,	49	1,104	1,153	..	..	..
Coffee—										
Plantation	890	13,795	14,685	,,	37	6,159	6,196	0.07	0.55	0.53
Trade(*a*)	..	..	..	,,	13	2,074	2,087	..	..	..
Rubber	32,447	1,517	33,964	,,	5,850	..	5,850	0.23	..	0.23
Tea	207	5,063	5,270	lb (dry)	..	761,066	761,066	..	449.5	449.5
Grain crops—										
Maize	34	142	176	bus	470	2,267	2,737	13.82	15.96	15.55
Rice	251	208	459	ton (paddy)	148	129	277	0.59	0.62	0.60
Sorghum	377	1,248	1,625	bus	7,212	8,096	15,308	19.13	6.49	9.42
Crops for green fodder—										
Maize	2	316	318	..	..	..	..	..	..	..
Sorghum	15	365	380	..	..	..	..	..	..	..
Other	93	1,040	1,133	..	..	..	..	..	..	..
Industrial crops—										
Peanuts	10	1,599	1,609	cwt (kernel)	37	6,185	6,222	3.70	3.87	3.87
Vegetable crops—										
For sale—										
Beans (green)	7	18	25	cwt	119	160	279	17.00	8.89	11.16
Tomatoes	15	18	33	,,	487	402	889	32.47	22.33	26.94
Potatoes, English	1	3	4	,,	..	48	48	..	16.00	16.00
Potatoes, sweet	45	343	388	,,	1,581	17,531	19,112	35.13	51.11	49.26
Pumpkins	24	5	29	,,	960	144	1,104	40.00	28.80	38.07
Other	82	67	149	,,	..	..	..	..	..	..
For consumption on holding—										
Potatoes, sweet	697	3,515	4,212	cwt	20,691	197,891	218,582	29.69	56.30	51.90
All other	520	1,797	2,317	..	..	..	..	..	..	..
All other crops	320	2,918	3,238	..	..	..	..	..	..	..
Total	80,207	394,665	474,872	..	..	..	..	..	..	..

(*a*) Includes all produce acquired by purchase during the year from sources outside the holding.

Livestock

Total cattle on non-indigenous holdings at June 1969 was 60,728. Indigenous involvement in the cattle industry is being encouraged. An estimated 4,600 head of cattle were owned by indigenes in 1967–68. Dairy farming is carried out on a small scale near major towns.

A number of British breeds of cattle are represented, but for best results the use of Zebu cross-bred types of cattle is desirable. For dairying the Jersey seems to be the best breed and adapts quite well to tropical conditions.

Central abattoirs controlled by the Administration have been set up at Lae and Port Moresby and there are smaller private slaughterhouses at other centres.

The following table shows the numbers of the various kinds of livestock on non-indigenously occupied holdings in Papua and New Guinea at 30 June 1969.

TERRITORY OF PAPUA AND NEW GUINEA: LIVESTOCK NUMBERS 30 JUNE 1969

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua and New Guinea)

Kind of stock	*Papua*	*New Guinea*	*Total*
Horses	432	773	1,205
Cattle—			
For dairying—			
Cows—in milk	302	988	1,290
dry	363	918	1,281
Heifers, one year and over	187	724	911
Heifer calves, under one year	211	875	1,086
Bulls, one year and over	60	239	299
Bulls under one year	34	134	168
Total dairying cattle	1,157	3,878	5,035
For beef—			
Cows and heifers, one year and over	6,335	24,080	30,415
Calves, under one year	1,146	5,216	6,362
Bulls, one year and over	379	1,233	1,612
Bulls, under one year	103	397	500
Other, one year and over	3,426	13,378	16,804
Total beef cattle	11,389	44,304	55,693
Total, all cattle	*12,546*	*48,182*	*60,728*
Sheep	52	329	381
Pigs—			
Boars	71	237	308
Breeding sows	315	773	1,088
Suckers, weaners, and slips	824	1,902	2,726
Other	55	421	476
Total pigs	*1,265*	*3,333*	*4,598*
Goats	824	583	1,407
Poultry(*a*)—			
Fowls	(*a*)	(*a*)	168,757
Ducks	(*a*)	(*a*)	3,757
Turkeys	145	169	314
Geese	(*a*)	(*a*)	45
Total poultry	*118,301*	*54,572*	*172,873*

(*a*) Only recorded where poultry products are marketed or flocks exceed 100 birds.

Forestry

Many species of tropical timbers are found in the Territory of Papua and New Guinea, although there is one accessible pure stand of Klinkii pine in the Bulolo Valley. This timber is used mainly for the production of plywood and veneer. The Territory forests produce all local timber requirements as well as exports of logs, sawn timber, plywood and veneer. The Administration operates a forestry school at Bulolo to train forestry officers, has established a research institute for forest products at Hohola near Port Moresby as well as regional silvicultural stations and a large herbarium at Lae.

The Administration is making available for public application a number of extensive timber areas estimated to contain a total of about 14,000 million super feet of logs and possibly twice this quantity of pulpwood. It is intended that those areas should form the basis for the development of integrated forest industries, which would be large and economically viable. Feasibility studies have been undertaken by consultants and some interested firms. Subject to negotiation the areas will be allocated on long-term permits. The Administration has acquired from the indigenous peoples timber rights over 3.8 million acres of forest for industrial development. Reforestation of permanently dedicated land is being undertaken by the administration, the area planted to date being 22,358 acres.

At 30 June 1969, 72 permits and 52 licences were current, the total area of forest involved being 1,339,181 acres. The total number of sawmills was 92 and the total sawn timber produced during 1968–69 was 45.7 million super feet. Total log production was 170 million super feet (true volume) of which 42.6 million was exported.

Fishing

Over 1,400 different species of fish are to be found in the coastal and inland waters of Papua and New Guinea and many are important food fish. Those of greatest commercial significance are barramundi, tuna, skipjack, crayfish and prawns. Efforts are being made to encourage indigenous fishermen to regard fishing as a source of cash income and not merely as a means of subsistence. This involves the Administration in research and extension work and requires the improvement of refrigeration, transportation and marketing facilities throughout the Territory. In the Highlands there is increasing interest in fish culture in freshwater ponds.

Commercial fishing for prawns by joint venture companies is increasing and a joint venture survey for skipjack on a commercial scale has given promising results.

Indigenous agriculture

Most of the indigenous inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar cane, cassava, beans, peanuts, rice, cucurbits, and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas it is cut largely from naturally occurring stands. In other parts of the country small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years the indigenes have taken up the production of introduced crops such as peanuts, rice, cucurbits, tobacco and maize for their own consumption, and cocoa, coffee, passion fruit and pyrethrum for export. Some small-scale rubber growing is now being undertaken. In coastal areas large quantities of copra are produced. In 1967–68 estimated indigenous production was: copra 38,644 tons, coffee 9,635 tons, cocoa 5,546 tons. In many localities the indigenes follow a farming system known as bush fallowing rotation, which is described in Year Book No. 48, and earlier issues.

The growing of food is done by both the men and the women. The division of work is usually clearly defined within the village itself, but this division is not necessarily the same in all areas. Generally the felling of forests is done by the men, and carrying the harvested food home to the village is done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of indigenous agriculture for local food supply and improved land use in village gardens as well as for economic production of crops for sale have a high priority in Government policy for the Territory. In recent years the Administration has intensified the programme of agriculture extension work among the indigenes. Indigenous cattle projects are increasing rapidly.

Survey of indigenous agriculture and ancillary surveys, 1961–62

A survey of the agriculture of indigenes of Papua and New Guinea was carried out in 1961–62 by the Territory Bureau of Statistics in conjunction with the Commonwealth Bureau of Census and Statistics and the Territory Department of Agriculture, Stock and Fisheries. A comprehensive report on the surveys was published by the Territory Statistician in 1963, and reference should be made to this for further information. A summary of the principal results of the survey appears on pages 1104-10 of Year Book No. 52.

TERRITORY OF PAPUA AND NEW GUINEA: AREA OF PRINCIPAL CROPS AND CROP PRODUCTION, YEAR ENDED 30 JUNE(*a*)

(*Source: Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua and New Guinea)

	Area under crop (acres)			*Quantity of production (tons)*		
	Indigenous	*Non-indigenous*	*Total*	*Indigenous (b)*	*Non-indigenous*	*Total*
Coconuts—						
1964	242,346	267,578	509,924	28,371	83,667	112,038
1965	287,897	262,039	549,936	33,602	85,034	118,636
1966	292,615	264,391	557,006	36,991	90,209	127,200
1967	305,630	269,127	574,757	34,504	81,159	115,663
1968	344,540	270,176	614,716	38,644	86,736	125,380
Cocoa—						
1964	29,430	112,404	141,834	4,127	11,285	15,412
1965	33,355	116,981	150,316	5,119	14,326	19,445
1966	35,915	122,226	158,141	4,131	14,427	18,558
1967	38,075	126,147	164,222	5,032	15,059	20,091
1968	39,569	129,706	169,275	5,546	18,092	23,638
Coffee—						
1964	30,049	10,851	40,900	3,517	3,032	6,549
1965	35,037	12,228	47,265	3,950	3,374	7,324
1966	41,590	13,415	55,005	6,791	3,874	10,665
1967	46,613	14,365	60,978	10,566	4,492	15,058
1968	47,691	14,817	62,508	9,634	4,705	14,339
Pyrethrum—						
1964	657	..	657	6	..	6
1965	1,652	..	1,652	140	..	140
1966	3,224	..	3,224	252	..	252
1967	3,815	..	3,815	551	..	551
1968	2,867	..	2,867	457	..	457
Rubber—						
1964	631	33,797	34,428	19	4,941	4,960
1965	1,049	33,317	34,366	27	5,183	5,210
1966	1,538	35,417	36,955	31	5,333	5,364
1967	2,617	37,043	39,660	23	5,438	5,461
1968	3,404	35,878	39,282	13	5,711	5,724

(*a*) Non-indigenous figures refer to year ended 31 March, for 1967 and earlier years. (*b*) Includes all produce acquired by purchase during the year from sources outside the non-indigenous holdings. Excludes amount consumed by growers.

Co-operative societies

Co-operatives are under the supervision and guidance of the Division of Co-operative Extension within the Department of Trade and Industry. A Territory-wide Federation of Co-operative Unions and a Co-operative Wholesale Society were established recently. A new co-operative college to be built at Laloki, near Port Moresby, will replace the existing Co-operative Educational Centre.

For the year ended 31 March 1968 primary societies numbered 316, with a membership of 109,175, a total capital of $2,329,405, and a turnover of $5,378,418. Secondary organisations numbered 14, with 239 member societies, a total capital of $666,840, and a turnover of $1,147,106.

Indigenous labour

The 1966 population census shows that there were 235,000 persons wholly or mainly engaged in the money-raising work force, 200,000 of these being employed in the private sector.

Minimum wages and conditions of employment for indigenous workers are prescribed under the *Native Employment Ordinance* 1958–1968. In rural areas an employer is required to pay a minimum cash wage to every worker employed by him, and provide the worker, and his accompanying dependants with food, clothing, cooking and eating utensils, towels, soap and other articles, medical attention, and accommodation. The estimated cost of providing these entitlements, excluding accommodation, is estimated at $151 a year for a single worker. The value of accommodation varies, but it would be in most cases about $30 a year.

The legal minimum cash portion of the wage for unskilled rural workers is $52 a year for the first year of employment, $58 in the second year and $65 in the third and subsequent years of continuous employment with the same employer.

In urban areas industrial agreements negotiated between employers and workers' organisations determine the minimum wages payable to workers. Provision is made by legislation for the employer-employee agreements reached to be registered by the Industrial Registrar, and they are then deemed to be judicial awards between the parties, and to have the force of law. Under this system minimum wage rates have been determined for the principal urban centres, and cover an increasing number of workers. In Rabaul, Lae, Madang, Wewak, Samarai–Alotau and Popondetta, the current minimum rate payable as a total cash wage, for unskilled adults or married juniors is $7 per week; in Mount Hagen, Goroka and Daru the corresponding wage in $6.50 and in Kavieng $6 per week.

Other provisions of the awards relate to: Annual leave and sick leave (two weeks' leave on full pay and six days' sick leave per annum); rates of pay for skilled tradesmen (ranging between $19 and $27 per week in Lae and between $17 and $23 per week in Rabaul depending on the grade of skill and service); rates of pay and conditions of employment of stevedoring workers and ships' crews; and rates of pay and conditions of employment of workers in the timber and sawmilling industries.

There has been a continued expansion of the trade union movement since industrial legislation for the Territory was introduced in March 1963. In December 1969 twenty-six associations with a membership of 17,853 had been registered as industrial organisations of workers under the Industrial Organisations Ordinance.

Provision is made in other legislation for the establishment and maintenance of modern standards of industrial safety and for the payment of compensation for injury or disease arising out of, or in the course of, employment.

An apprenticeship scheme was inaugurated in 1955 and re-organised in 1968. An Apprenticeship Board, comprising representatives of private enterprise and government, advises the Administration on apprenticeship matters. By December 1969 600 apprentices had received trade certificates. The yearly intake into the apprenticeship scheme has been about 350 in each of the last three years.

Housing

Village housing is constructed to traditional patterns using local materials including bush timber, bamboo, grass, pit-pit and sago palm leaves. Town housing is generally constructed from comparatively expensive imported material including fibrous asbestos cement, aluminium and galvanised iron. The majority of houses are timber framed and made from both locally milled and imported timber.

The rapid growth of urban areas consequent upon increased economic development has created a housing shortage. Major programmes are directed towards reducing this shortage.

During 1969–70 the Administration completed accommodation for 1,355 married and 702 single officers.

The Housing Commission completed its first year of operations in 1968–69 during which it built 279 houses. During 1969–70 the Commission had a further 361 houses and 40 flat units under construction. The Housing Commission has also developed a minimum cost house (approximately $1,300) and completed 204 of these dwellings during 1969–70.

Secondary industries

The major manufacturing industries are generally those processing primary products, mainly for export. Examples of these are plywood, coconut oil, copra by-products, desiccated coconut and pyrethrum.

Nevertheless industries catering for the rapidly expanding local market remain numerically predominant. These include the brewing of beer, furniture making and assembly of electrical appliances; the production of cigarettes and twist tobacco, concrete products, glass bottles, drums industrial gases, chemicals, fibreglass products, nails and other wire products, packaging and paper products, paints, metal louvre frames, terrazzo and other building materials; and printing and shipbuilding.

A wide variety of services has also been established such as engineering workshops, plumbing establishments, motor repairs and electrical services.

TERRITORY OF PAPUA AND NEW GUINEA: SUMMARY OF FACTORY OPERATIONS, 1967-68 AND 1968-69

(*Source: Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua and New Guinea)

		Papua		*New Guinea*		*Total*	
		1967–68	*1968–69*	*1967–68*	*1968–69*	*1967–68*	*1968–69*
Number of factories(*a*)		195	203	361	406	556	609
Average number employed(*b*)		4,221	4,261	7,199	9,026	11,420	(*c*)13,287
Salaries and wages paid(*d*)	$'000	4,860	5,218	7,405	8,798	12,265	14,016
Value of power, fuel, light, etc., used(*e*)	,,	526	484	1,177	1,322	1,703	1,806
Value of materials used(*f*)	,,	8,728	9,148	25,424	29,234	34,152	38,382
Value of production(*g*)	,,	10,712	11,937	19,253	23,106	29,965	35,043
Value of output(*h*)	,,	19,967	21,569	45,854	53,661	65,821	75,231
Value of land and buildings(*i*)	,,	7,855	7,960	9,357	11,891	17,212	19,852
Value of plant and machinery(*i*)	,,	12,370	13,391	8,461	10,814	20,831	24,206

(*a*) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (*b*) Average weekly employment including working proprietors. (*c*) Comprising 12,769 males and 518 females. (*d*) Excludes drawings by working proprietors. (*e*) Includes water and lubricating oil. (*f*) Includes value of containers, packing, etc., tools replaced, and repairs to plant. (*g*) Value added in process of manufacture (i.e. value of output less value of materials and power, fuel, etc. used). (*h*) Value of goods produced including amounts received for repair work and other work done. (*i*) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

TERRITORY OF PAPUA AND NEW GUINEA: FACTORY OPERATIONS BY CLASS OF INDUSTRY, 1968-69

(*Source: Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua and New Guinea)

		Class of industry				
		Industrial metals, machines and conveyances	*Food, drink and tobacco*	*Sawmills, plywood and joinery*	*Other industries*	*Total*
Number of factories		281	94	152	82	609
Number of employees—						
Non-indigenous		n.a.	n.a.	n.a.	n.a.	2,330
Indigenous		n.a.	n.a.	n.a.	n.a.	10,957
Total employees		*4,273*	*3,225*	*3,932*	*1,857*	*13,287*
Salaries and wages paid	$'000	6,902	1,878	3,147	2,088	14,016
Value of power, fuel and light, etc.	,,	309	558	333	607	1,806
Value of materials used	,,	9,617	13,580	6,549	8,636	38,382
Value of production	,,	11,680	8,359	8,000	7,004	35,043
Value of output	,,	21,605	22,497	14,883	16,246	75,231

See footnotes to previous table.

NOTE. Electricity generation is included in 'Other industries'.

Trade, transport and communication

Value of imports and exports

TERRITORY OF PAPUA AND NEW GUINEA: IMPORTS AND EXPORTS
1964-65 TO 1968-69
($'000)

(*Source: Overseas Trade Statistics*, Bureau of Statistics, Papua and New Guinea)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Total imports(a)	*86,846*	*110,431*	*126,031*	*(b)145,303*	*150,455*
Exports—					
Domestic exports	43,312	43,544	45,679	(*c*)59,059	64,890
Re-exports	5,828	6,286	7,541	(*c*)11,191	10,354
Total exports	*49,140*	*49,830*	*53,220*	*70,250*	*75,244*

(*a*) Includes value of outside packages. (*b*) Includes floating oil rig valued at $8 million, re-exported in July 1969. (*c*) Revised.

Country of origin or destination

TERRITORY OF PAPUA AND NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS
1964-65 TO 1968-69
($'000)

(*Source: Overseas Trade Statistics*, Bureau of Statistics, Papua and New Guinea)

Country of origin	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Australia	49,660	62,452	71,246	78,079	82,165
Canada	191	878	736	852	1,162
Ceylon	253	296	320	366	341
China (mainland)	1,241	1,600	2,257	1,715	2,758
France	366	448	573	825	1,402
Germany, Federal Republic of	2,476	2,320	2,687	2,739	3,448
Hong Kong	3,668	4,045	4,306	4,583	4,760
Italy	223	297	363	1,449	746
Japan	7,404	9,996	13,073	14,448	17,849
Malaysia and Singapore	1,479	3,337	3,451	3,783	4,357
Netherlands	582	563	4,468	880	913
New Zealand	386	328	249	77	841
Sweden	394	770	455	480	610
United Kingdom	6,589	8,644	7,141	7,213	8,574
United States of America	6,361	7,507	7,804	(*a*)19,613	11,589
Other Countries	5,573	6,950	6,902	8,201	8,940
Total	**86,846**	**110,431**	**126,031**	**145,303**	**150,455**

(*a*) Includes floating oil rig valued at $8 million.

TERRITORY OF PAPUA AND NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS 1964-65 TO 1968-69

($'000)

(*Source: Overseas Trade Statistics*, Bureau of Statistics, Papua and New Guinea)

Country of destination	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Australia	23,594	23,045	24,857	29,288	29,548
Germany, Federal Republic of	2,730	2,283	3,030	4,656	8,403
Japan	1,785	1,981	2,794	4,652	3,732
Netherlands	1,626	1,456	1,192	2,194	3,869
United Kingdom	15,069	16,577	14,543	20,279	18,769
United States of America	1,348	2,287	3,311	5,403	5,662
Other Countries	2,988	2,201	3,493	3,778	5,261
Total	**49,140**	**49,830**	**53,220**	**70,250**	**75,244**

Principal commodities exported

TERRITORY OF PAPUA AND NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS 1964-65 TO 1968-69

($'000)

(*Source: Overseas Trade Statistics*, Bureau of Statistics, Papua and New Guinea)

Commodity	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Copra	12,409	14,298	9,994	13,943	14,804
Other coconut products	7,404	6,589	5,840	7,405	6,361
Coffee beans	7,295	8,787	10,208	14,320	15,531
Cocoa beans	7,049	4,435	9,545	11,794	16,060
Timber(*a*)	1,438	1,697	2,264	2,497	2,296
Plywood(*b*)	2,095	1,987	2,167	2,429	2,504
Rubber(*c*)	2,564	2,576	2,481	1,956	2,276
Gold	1,078	947	914	825	807
Crayfish and prawns	12	17	33	978	268
Crocodile skins	855	1,001	737	509	473
Peanuts	461	527	526	430	469
Pyrethrum extract	..	89	390	417	313
Passionfruit extract	176	174	112	202	122
Tea	17	11	3	42	297
Other	459	409	465	1,312	2,309
Total	**43,312**	**43,554**	**45,679**	**59,059**	**64,890**

(*a*) Logs and sawn timber. (*b*) Plywood, veneer and battery veneer. (*c*) Raw and scrap rubber.

Shipping

In 1968–69 shipping entries (overseas and inter-territory vessels) at Territory ports totalled 1,543, and 475,300 tons of cargo were discharged and 233,600 tons were loaded. Corresponding figures for 1967–68 were 1,615, 524,500 and 290,400 respectively.

Regular passenger and freight services operate between Australia and Papua and New Guinea. Vessels trading between Australia and the East also call at Territory ports, and there are services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory.

Other forms of transport and communication

Scheduled flights provide a network of air transport throughout Papua and New Guinea and regular air services link the Territory with Australia and neighbouring Territories, also with Manila, Hong Kong, Honiara and Jaipura. There were 406 licensed aerodromes in the whole of Papua and New Guinea at 30 June 1970, and of these 12 were the responsibility of the Department of Civil Aviation, 131 of the Administration, and 263 were privately owned. Much of the internal traffic and freight is carried on a charter basis.

At 30 June 1969 there were 7,374 miles of roads in the Territory of which 2,516 were adequately paved. Total motor vehicle registrations (excluding defence force vehicles) at 31 December 1969 were 29,236.

Telephone services operate between the main centres by radio telephone. This together with telex and telegraph services are operated within the Territory by the Department of Posts and Telegraphs, while overseas traffic is handled by the Overseas Telecommunications Commission. The Australian Broadcasting Commission broadcasts on medium wave and short wave from Port Moresby and Rabaul. The Administration Department of Information and Extension Services operates transmitters at a number of centres, broadcasting programmes in several local languages.

Education and health

Education

Education in Papua and New Guinea is provided by the Administration and various mission organisations. The *Education Ordinance* 1952–1964 enables the Administration to establish an education advisory board and district education committees, to conduct schools and to grant financial aid for educational purposes. Teachers are recruited from Australia and overseas and some are trained at the Australian School of Pacific Administration, Sydney, and in the Territory by the missions and the Administration.

During the year ended 30 June 1969, 569 schools were maintained by the Administration for 94,000 children. The total number of pupils in the various grades of mission schools was 42,000. There is also a correspondence school. To assist the educational work of the missions the Administration provides expert advice, educational equipment and text books. In addition the sum of $2,701,544 was distributed among the missions as grants-in-aid during the year ended 30 June 1969.

In February 1969 the Minister for External Territories appointed the Advisory Committee on Education in Papua and New Guinea to advise on any changes it considers desirable in the present relationship between the Department of Education, the voluntary educational agencies and local government councils.

In March 1966 the University of Papua and New Guinea commenced teaching with 57 students undertaking a preliminary year. In 1969 there were 595 degree and diploma students, including 309 Papuans and New Guineans. Students are enrolled for Bachelor degrees in Arts and Education, Law and Science and post-graduate degrees in Masters of Law, Arts and Science and Doctorates of Philosophy in such disciplines as Biology, Chemistry, Education and History.

The Papua and New Guinea Institute of Technology (formerly the Papua and New Guinea Institute of Higher Technical Education) accepted its first undergraduates in 1967, with 31 students undertaking Engineering and Surveying courses. In 1969 there were 141 students (6 expatriates) undertaking courses in civil, electrical and mechanical engineering, surveying and accountancy and business studies.

Health

The Department of Public Health of the Territory of Papua and New Guinea has the general oversight of all medical and dental services. The Department has the following seven functional divisions: medical services, preventive medicine, medical training, maternal and child health, dental education, administrative services, and mental health. To facilitate administration and co-ordination of the field services of the Department of Public Health, the Territory is divided into four geographical regions: the New Guinea Mainland, Highlands, New Guinea Islands Region and Papua.

Finance

Revenue and expenditure

TERRITORY OF PAPUA AND NEW GUINEA: REVENUE AND EXPENDITURE, 1964-65 TO 1968-69
($'000)

	1964–65	*1965–66*	*1966–67*	*1967–68*	*1968–69*
REVENUE					
Customs	8,881	11,783	14,916	16,555	17,669
Licences	431	523	634	738	814
Stamp duties	245	348	422	508	553
Postal	2,053	2,548	3,201	3,543	4,682
Land revenue	356	653	788	748	832
Mining receipts	36	41	39	47	72
Fees and fines	130	186	248	283	364
Health revenue	233	263	300	317	352
Forests	462	550	572	640	547
Agriculture	414	586	786	1,087	1,015
Public utilities	432	556	629	905	1,173
Direct taxation	8,793	10,182	13,902	15,904	17,187
Miscellaneous	3,345	4,576	4,869	5,397	4,614
Recoverable services	2,117	2,526	2,883	3,229	5,264
Total internal revenue(a)	*27,929*	*35,320*	*44,190*	*49,900*	*(b)55,137*
Territory loans	6,318	6,157	6,194	8,397	7,183
Grant by Commonwealth of Australia(a)	55,999	62,000	69,784	77,594	87,271
International loans	..	..	..	..	51
Total revenue	**90,246**	**103,477**	**120,168**	**135,892**	**149,642**
EXPENDITURE					
Special appropriations	2,294	2,028	2,386	2,785	5,734
Administrator	824	686	1,082	1,329	1,327
House of Assembly	254	306	418	420	291
Information and extension services	531	645	748	1,001	1,187
Public Service Board	646	791	1,240	1,270	1,550
Treasury	9,660	10,586	10,302	11,576	11,623
Public health	8,076	9,554	10,410	11,124	12,217
District administration	4,058	4,751	5,667	6,012	6,570
Labour	427	472	595	632	778
Education	9,797	11,527	13,167	15,062	17,214
Agriculture, stock and fisheries	3,706	4,548	5,413	6,427	7,492
Royal Papua and New Guinea Constabulary	2,348	2,962	5,239	6,143	6,671
Law	1,070	1,524	2,174	2,545	2,930
Lands, surveys and mines	1,612	2,306	3,051	3,177	3,270
Forests	993	1,330	1,625	2,369	2,469
Posts and telegraphs	3,093	3,528	4,249	4,750	5,688
Trade and industry	1,724	2,435	2,374	2,607	2,826
Stores for resale	..	1,594	1,535	1,474	1,625
Public works	3,548	4,187	4,755	5,740	7,115
General overheads	1,888	2,184	2,088	2,291	2,241
Maintenance	7,768	8,456	9,402	10,581	12,217
Capital works	14,810	19,674	21,221	22,503	21,379
Other institutions	2,543	3,702	6,444	8,623	11,498
Motor transport	1,868	2,253	2,523	2,792	3,214
Government printer	230	273	289	312	361
Total	**83,768**	**102,303**	**118,398**	**(c)133,547**	**(c)149,485**

(a) The annual grants by the Commonwealth of Australia are made to the Territory of Papua and New Guinea. (b) From 1 July 1968 refunds of revenue have been deducted from gross collections by items. (c) Amount reduced by taxation refunds and refunds of revenue.

Taxation

The main forms of taxation are income tax and import duties. *Income Tax* was imposed on 1 August 1959 to operate from 1 July 1959. In the case of individuals two different methods of calculating tax payable are used. Tax on taxable incomes has applied since 1 July 1959 and is calculated on a similar basis to that in Australia. The scale of taxation is about 50 per cent of the tax payable on the same taxable income in Australia. Deductions for dependants the taxpayer is maintaining are considerably higher than those allowed in Australia. Tax on chargeable income was introduced to apply from 1 January 1967 and has supplanted a previous *Personal Tax* of $4 payable by all males eighteen years and over. Chargeable income consists of gross income less expenses directly incurred in earning the income. No deductions are allowable for dependants or any other private expenditure such as medical or education expenses. The tax is a flat rate of 2.025 cents in the $1 applying on income above $416 with a maximum of $20.50. The two methods of calculating tax payable are supplementary, the method applied to any particular taxpayer being the one resulting in the greater amount of tax payable. Companies are taxed on a similar basis to that in Australia, and deductions allowable are generally comparable to those in Australia. From 1 July 1959 to 30 June 1967 the rates on public and private companies differed, public companies being taxed at a flat rate of 20 cents in the $1 and private companies at 12.5 cents in the $1 for the first $10,000 and 17.5 cents in the $1 for the remainder. From 1 July 1967 a flat rate of 22.5 cents in the $1 applies to all companies, and from the same date private companies are no longer required to distribute a portion of their income in dividends each year. To encourage industry in the Territory certain companies manufacturing products new to the Territory may be granted complete tax exemption for the first five years of operation under the *Industrial Development (Incentive to Pioneer Industries) Ordinance* 1965. In addition to income taxes the Native Local Government Councils (which are formed voluntarily by the indigenes) are empowered to levy local taxes for the purpose of providing for local services carried out by the councils. These taxes are set off against the taxpayers' personal taxation.

The present *Customs Tariff* provides high revenue rates on imports of ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods, and jewellery, but allows entry duty free or at a low rate of duty of most necessities affecting living and building costs. Under the Customs Tariff, plant, machinery and chemicals to be used mainly for industrial and developmental purposes are generally duty-free. A by-law covers goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell, and gold were repealed in July 1959.

Provision is made in the *Australian Customs Tariff (Papua and New Guinea Preference)* 1936 for the free entry into Australia of certain agricultural goods produced in and imported direct from the Territory (*see* chapter Overseas Transactions). In addition, goods produced or manufactured in the Territory and imported directly into Australia are exempted from primage duty.

Banking

The banking system in the Territory of Papua and New Guinea is based on Australia's, and provides full trading and savings bank facilities. Four Australian trading banks have branches in the main centres. They are: the Commonwealth Trading Bank of Australia, the Bank of New South Wales, the Australia and New Zealand Bank and the National Bank of Australasia Ltd. Affiliates or subsidiaries of banking institutions operate savings banks in the Territory. Rates of interest for bank deposits and advances are the same as those applying in Australia. A branch of the Reserve Bank of Australia in Port Moresby carries out central bank functions and acts as banker for the Administration and Commonwealth Government Departments in the Territory. The Territory uses the same currency as Australia.

The Banking (Foreign Exchange) Regulations of the Commonwealth of Australia apply to the Territory of Papua and New Guinea. The Regulations are administered by the Reserve Bank of Australia in a way that is consistent with the policy of encouraging overseas investment in Australia and the Territory. All remittances abroad require exchange control approval, though in practice no restrictions are imposed on current transactions and the trading banks have been authorised to deal with the great majority of these transactions as agents of the Reserve Bank.

The Papua and New Guinea Development Bank which opened in July 1967, has as its prime objective the provision of funds to assist individuals and enterprises in developing the Territory. The Bank was established to provide finance where it was not otherwise available on reasonable terms and conditions. Both indigenes and non-indigenes can qualify for advances. When considering applications the Bank is concerned mostly with the borrower's prospects for success rather than his security.

Average weekly deposits of cheque-paying banks in the Territory of Papua and New Guinea for the year 1968–69 were $38,157,000 and loans, advances, etc., $23,054,000. Average weekly debits to customers' accounts amounted to $17,336,000. Savings banks depositors' balances at 30 June 1969 amounted to $37,185,000, comprising indigenous $14,955,000 and non-indigenous $22,230,000, having increased since June 1959 from $2,380,000 and $7,546,000 respectively.

TERRITORY OF PAPUA

General description

Area, etc.

Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 930 miles; towards either end the breadth from north to south is about 320 miles, but about the centre it is considerably narrower. The Territory includes also the islands of the Trobriand, Woodlark, D'Entrecasteaux, and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland and 1,936 on the islands. The total area is 86,100 square miles, of which 83,325 are on the mainland and 2,775 on the islands. A description of the physical characteristics of the Territory appears in earlier issues of the Year Book (*see* No. 18, page 633) and in the Administration Annual Reports.

Administration

Particulars of the early administration of Papua are given in Year Book No. 19, page 576. The Territory was placed under the authority of the Commonwealth on 1 September 1906 by proclamation issued in pursuance of Letters Patent of 18 March 1902 and was accepted by the Commonwealth by the *Papua Act* 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is under the control of the Commonwealth, but not included within it, and is divided into six administrative districts, Southern Highlands, Western, Gulf, Central, Milne Bay, and Northern.

Population

Indigenous population

Within the major division, Melanesian, into which most indigenous inhabitants of the Territory are classified, a distinction may be made between a Melanesian type and a Papuan type, the former representative of the eastern mainland and the island archipelagos to the east and south-east, and the latter representative of the western third and the interior of the Territory. Some negrito traits have been noted in a few of the inland mountain groups. The indigenous population of the Territory of Papua as recorded in the 1966 census is shown on page 990. The estimated indigenous population for 30 June 1969 was 609,784 persons, comprising Central, 115,059; Gulf, 67,369; Milne Bay, 104,578; Northern, 56,934; Southern Highlands, 200,904; and Western, 64,940.

Non-indigenous population

The numbers of non-indigenous population from the 1966 census are given on page 990. Separate figures for Papua and for New Guinea are no longer available. The estimated non-indigenous population at 30 June 1969 for Papua and New Guinea was 43,391.

Land tenure

The basic principles applying to land tenure in Papua are the same as those applying to the whole of the Territory of Papua and New Guinea described on pages 992–3. At 30 June 1969, of the total area of Papua, 55,102,041 acres, only 1,945,256 acres had been alienated. The distribution of alienated land at 30 June 1969 according to tenure was as follows: held by private non-indigenous inhabitants, freehold 24,280 acres; leasehold 404,833, land tenure conversion (freehold) 4,448 acres; native reserves 67,255 acres; other Administration land, including land reserved for public purposes, 1,444,440 acres. Land held in accordance with native custom may be converted to freehold tenure under the *Land (Tenure Conversion) Ordinance* 1963–1967.

Although a small amount of freehold land exists in Papua, present legislation does not provide for the granting of estates in freehold. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, town subdivision leases, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal, and, in general, leases may be granted for periods of up to ninety-nine years. Rent is based on the unimproved value of the land.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available, and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interest and dealings in alienated land is provided for under the *Real Property Ordinance* 1913–1969, modelled on the Torrens system of land registration.

Production

Primary production

The products of the Territory are obtained principally from its agricultural, forestry, mining, and fishing industries. Indigenous subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main indigenous agricultural products are taro, yams, sweet potatoes, bananas, and papaws. Peanuts are becoming of increasing importance in the indigenous diet. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, while indigenous enterprise in other fields of agricultural production for export purposes, e.g. cocoa and coffee, is undertaken. The principal agricultural products of Papua for the export trade are copra and rubber. Indigenous production of copra is increasing. The fishing industry is also of increasing importance. Gold, silver, manganese, zinc-lead, and copper ores have been mined in commercial quantities in the past, but current production is limited to gold and silver.

For information on the agricultural and animal industries, *see* pages 992–7 which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined. The following paragraphs relate to forestry, mining, fisheries, and water-power resources in Papua.

Forestry

A general description of the forestry policy in Papua and New Guinea is given on pages 995–6.

Mixed species of tropical rain forest cover most of Papua, although near Port Moresby there is an area of savannah country. Because of the mixed nature of the timbers in any one area, their utilisation on an economical basis is difficult. Mangroves occur in large areas fringing the Gulf of Papua. Forestry field work is carried out in Papua with a view to assessing the forest resources available and also to survey areas subsequently made available for cutting.

Mining

Although a large number of minerals have been found in Papua, including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum, and lignite, current mineral production is not of economic importance. Before the 1939–45 War gold was an important item in Papuan production, but it has since dwindled to insignificance. Large quantities of copper ore were mined and exported up to 1940. A large low grade copper ore body is being investigated in the Star Mountains, near the West Irian border. Extensive deposits of magnetite sands exist along the Gulf of Papua coastline, but these contain the undesirable impurity titanium, and ways of separating this from magnetite are under investigation. The *Mining Ordinance* 1937–1966 and the *Mining Development Ordinance* 1955–1960 control mining in Papua.

Indications of oil have been found at scattered locations over a large area, but commercial quantities have not been discovered. Natural gas has been found in several wells in the Gulf District (including offshore), but its commercial use is not yet economically feasible. At 30 June 1970 twenty-two permits and licences were effective under the provisions of the *Petroleum* (*Prospecting and Mining*) *Ordinance* 1951–1968 and the (*Commonwealth*) *Petroleum* (*Submerged Lands*) *Act* 1967–1968.

Fisheries

The fishing industry in Papua is considered to have considerable potential. In 1968–69 the most important export from Papua and New Guinea was 258,395 lb of frozen crayfish tails and prawns from the north coast of Papua, valued at $268,181. Exports of barramundi to Australia are also important. Two large international firms are operating commercial prawn fishing ventures.

Two cultured pearl farms have recently commenced production of both round and half pearls of high quality.

Water power

Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that at least 1,850 MW could be developed.

The Rouna No. 1 hydro station on the Laloki River near Port Moresby has a capacity of 5.5 MW. A second hydro station, Rouna No. 2, came into operation in 1967, with an initial installed capacity of 18 MW. Total capacity of this station is now 30 MW.

TRUST TERRITORY OF NEW GUINEA

General description

Area, etc.

The Trust Territory of New Guinea extends almost from the equator to latitude 8° S., a distance of 400 nautical miles, and from longitude 141° E. to 160° E., a distance of 1,000 nautical miles. The land area is 92,160 square miles, that of the New Guinea mainland being 69,095 square miles and that of adjacent islands, including the two northernmost islands of the Solomon Islands, Buka and Bougainville, and the Bismarck Archipelago, 23,065 square miles. Information regarding physiography and climate will be found in Year Book No. 22, page 613, in the *Official Handbook of the Territory of New Guinea*, and the Administration Annual Reports.

Administration

The terms of the League of Nations mandate (1920) of the former German possession of New Guinea are given in Year Book No. 33 (*see* page 264). Particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration are given in Year Book No. 36 and earlier issues, and of events following the outbreak of the Pacific War in Year Book No. 37 and subsequent issues up to No. 48.

Following the 1939–45 War the Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organisation on 13 December 1946. The terms of the Agreement are shown in Year Book No. 39, pages 355–7.

For administrative purposes the Territory is divided into the following twelve districts: East New Britain and West New Britain, comprising New Britain and the adjacent islands; Morobe, Madang, Eastern Highlands, Chimbu (major part), Western Highlands, East Sepik and West Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

Population

Indigenous population

The indigenous people of the Territory may in general be grouped with the Melanesians who occupy the greater part of the Western Pacific. They may be divided into two main types—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (*See* Year Book No. 16, page 670, and *Official Handbook of the Territory of New Guinea*, Part V.)

The indigenous population of the Territory at the Census of 30 June 1966 is shown on page 990. At 30 June 1969 the estimated indigenous population was 1,702,280 persons, comprising Bougainville, 72,661; Eastern Highlands, 223,551; Chimbu, 183,164; Western Highlands, 325,972; Madang, 162,717; Manus, 21,588; Morobe, 235,886; East New Britain, 90,235; West New Britain, 48,454; New Ireland, 48,774; East Sepik, 96,059; and West Sepik, 193,219.

Non-indigenous population

The non-indigenous population of the Territory of New Guinea at the 1966 Census is shown o page 990. Separate figures for Papua and for New Guinea are no longer available. The estimated non-indigenous population at 30 June 1969 for Papua and New Guinea was 43,391.

Land tenure

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua, and grants of estates are restricted to leasehold tenure. In New Guinea, however, the amount of freehold land of earlier origin held by private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase, subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at approximately 58,980,077 acres, of which at 30 June 1969 only 1,886,375 acres were alienated. The following was the distribution of alienated land according to tenure at 30 June 1969: held by private non-indigenous inhabitants—freehold, 511,520 acres; leasehold 478,794 acres; native reserves 26,815 acres; other Administration land,including land reserved for public purposes 366,652 acres. Land held in accordance with native custom may be converted to freehold tenure under the *Land (Tenure Conversion) Ordinance* 1963–1967.

Under German law there was a system of registration of titles in a Ground Book, but registration did not necessarily confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in the *Lands Registration Ordinance* 1924–1969. The land registers were lost during the 1939–45 War, but provision for restoration of the lost titles is made in the *New Guinea Land Titles Restoration Ordinance* 1951–1968.

Production

The products of New Guinea are obtained principally from its agricultural, mining, fishing, and forestry industries. A copra crushing mill near Rabaul, established in 1952, commenced crushing at about 18,000 tons of copra per annum, and its capacity is now about 60,000 tons of copra per annum. Early in 1968 a factory capable of manufacturing 7,000 tons of desiccated coconut a year was established also near Rabaul. At Bulolo a company is producing high quality moisture-proof plywood in a factory with an approximate annual plywood production of 36 million square feet (on a $\frac{3}{16}$ in basis). Indigenous subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main indigenous agricultural products are taro, yams, sweet potatoes, coconuts, bananas, papaws. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, and in recent years have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption and coffee, cocoa, tea, passionfruit and pyrethrum for export. The principal agricultural products of New Guinea for the export trade are copra and coconut oil, cocoa, and coffee, but exports of timber and timber products are substantial and the export of tea is increasing. The fishing industry is based upon the supply of fish to local markets, and the export of small quantities of shell. Prospects for commercial fishing of skipjack are good. Gold is the principal mineral mined. Indigenes are taking an increasing interest in mining for alluvial gold on their own account, and production from this source is continually rising, in contrast to falling European production. Copper and gold production from Bougainville is expected to commence in 1972. This production will greatly exceed the present mineral output.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, *see* pages 992–7. The following paragraphs relate to the timber, and mining industries in the Territory of New Guinea alone.

Forestry

A general description of the forestry policy in Papua and New Guinea is given on pages 995–6.

Mining

The production of gold and associated silver is the most important mining activity in New Guinea, although other minerals, such as osmiridium, platinum, copper, iron ore, sulphur, and brown coal, have been discovered. The production of gold in New Guinea since the 1939–45 War has been on a much smaller scale than before the war, decreasing from $1,410,000 in 1959–60 to $806,307 in 1968–69. The discovery of extensive low-grade copper deposits on Bougainville has given an impetus to the copper industry in the Territory.

The laws in operation governing mining are the *Mining Ordinance* 1928–1966, the *Mines and Works Regulation Ordinance* 1935–1962 and the *Mining Development Ordinance* 1955–1960 and the regulations made thereunder.

The *Petroleum (Prospecting and Mining) Ordinance* 1951–1968 deals with the issue of permits and the granting of licences and leases for oil exploration. There were two prospecting permits for oil current at June 1970.

Water power

An approach was made during 1966–67 to the International Bank for Reconstruction and Development with regard to a loan for the Upper Ramu Hydro-electric Scheme, a 75 MW project planned for supplying Lae, Madang, Goroka, Mount Hagen, and intervening areas. Further investigations recommended by the Bank are being carried out.

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953. In 1968, the responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply.

In December 1947 an Australian scientific station was established on Heard Island, and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. Heard Island is about twenty-seven miles long and thirteen miles wide. The McDonald Islands are twenty-six miles to the west of Heard Island. They are small, rocky and precipitous.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Terre Adélie situated south of 60° S. latitude and lying between 160° E. longitude and 45° E. longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Terre Adélie were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60° S. latitude lying between 136° E. longitude and 142° E. longitude. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory. In 1968, responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply.

On 13 February 1954 the Australian National Antarctic Research Expeditions (ANARE) established a station on MacRobertson Land at latitude 67° 36′ S. and longitude 62° 53′ E. The station was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 35′ S. and longitude 77° 58′ E. The station was named Davis in honour of the late Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. The station was temporarily closed down in January 1965 and reopened in February 1969. In February 1959 the Australian Government accepted from the United States

Government custody of Wilkes Station, which was established by the United States on 16 January 1957 on Vincennes Bay, at latitude 66° 15′ S. and longitude 110° 32′ E. The station was named in honour of Lieut Charles Wilkes, who commanded the 1838–42 United States expedition to the area. A new station of advanced design, built about 1½ miles south of Wilkes, was opened in February 1969 and named Casey in honour of Lord Casey, who has had a long association with Antarctic Expeditions. Wilkes ceased operations early in April 1969. ANARE have also operated a station, since the 1947–48 Antarctic season, at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

On 1 December 1959 Australia signed the Antarctic Treaty with Argentine, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., the United Kingdom, and the United States of America. Poland, Czechoslovakia, Denmark and the Netherlands have subsequently acceded to the Treaty. The Treaty reserves the Antarctic area south of 60° S. latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and preserves, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. The Treaty entered into force on 23 June 1961. Since then the Antarctic Treaty powers have held five consultative meetings under the Treaty, the first at Canberra in July 1961, the second at Buenos Aires in July 1962, the third at Brussels in June 1964, the fourth at Santiago in 1966, and the fifth in Paris in 1968. The sixth is to be held in Tokyo in 1970.

COCOS (KEELING) ISLANDS

General description

The Cocos (Keeling) Islands, two separate atolls comprising some twenty-seven small coral islands with a total area of about 5½ square miles, are situated in the Indian Ocean in latitude 12° 5′ S. and longitude 96° 53′ E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about six miles from north to south, on which are the aerodrome and most of the European community; Home Island, the headquarters of the Clunies-Ross Estate; Direction Island; South Island; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about fifteen miles to the north of the groups and has no inhabitants.

Main settlements are on West Island and Home Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and the average rainfall is about 67 inches. There are occasional violent storms. The estimated population at 30 June 1969 was 607 (307 males and 300 females).

History and administration

Summarised particulars of the discovery of the islands and their history up to 1946, when they became a dependency of the Colony of Singapore, are given in Year Book No. 51, page 140, and in earlier issues. On 23 November 1955 the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the *Cocos (Keeling) Islands Act* 1955 of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth, to be known as the Territory of Cocos (Keeling) Islands.

Responsibility for the administration of the Territory rests with the Minister for External Territories. The first Official Representative was appointed on 23 November 1955 to take charge of the local administration of the Territory. Under the *Official Representative Ordinance* 1955–1961 of the Territory, the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the *Cocos (Keeling) Islands Act* 1955–1966 or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos (Keeling) Islands Act* 1955–1966. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

Transport and communication

There is an international airport at West Island under the control of the Commonwealth Department of Civil Aviation. A three-weekly air service is provided between Perth and the Cocos Islands by Ansett and T.A.A. alternatively. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals. A radio teletype link with Perth is maintained by the Administration. Local postal and telephone services exist, and a non-commercial broadcasting station operates.

CHRISTMAS ISLAND

Christmas Island is an isolated peak situated in the Indian Ocean in latitude 10° 25′ 22″ S., longitude 105° 39′ 59″ E. It is approximately 224 miles south from Java Head at the south entrance to Sunda Strait, 815 miles from Singapore and 1,630 miles from Fremantle. Christmas Island covers an area of about fifty-two square miles. It consists of a central plateau of about 600 to 800 feet with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the island except in a few places, the chief of which is Flying Fish Cove, where the principal settlement is located and which is also the only known anchorage.

The climate is healthy and pleasant, and the prevailing winds come from the south-east to east-south-east from May to December, but from then to April (the wet season) they occasionally shift round to between north and west. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

The economy of the Territory is based almost entirely on the mining and extraction of phosphate. Because of the nature of the land there appears little prospect of establishing any other economic activity.

At 30 June 1969 the estimated population was 3,439 (2,236 males and 1,203 females).

Education

The Christmas Island education system comprises a primary school and a secondary school following the Singapore curriculum, a primary school following an Australian curriculum and a technical training centre. The Singapore curriculum schools provide classes to Form 4 level and scholarships are available for students wishing to proceed to Singapore for education beyond that level.

At 30 June 1969, 515 children were enrolled at primary level and 276 at secondary level. The combined staff establishment consisted of a headmaster, two senior teachers, 25 class teachers and two trainee teachers. The Technical Training Centre was opened in September 1969 with an enrolment of 40 apprentices. It is being conducted by staff seconded from the Western Australian Department of Education and follows the curriculum of that Department. The Australian curriculum primary school had 60 pupils at 30 June 1969. The two teachers are seconded from the Western Australian Department of Education.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony from 1 January 1958, pending transfer to Australia, are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the island was transferred to the Commonwealth of Australia by the *Christmas Island Act* 1958 and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for External Territories, and day to day affairs on the island are administered by an Administrator under delegation from the Minister. The laws which were in force on the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia.

Phosphate deposits

The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission. There are three principal phosphate deposits on the islands, of which the largest is that now being worked at South Point. This field is situated on the 600 feet to 800 feet level and is approximately 12 miles from the drying and shipping plant at Flying Fish Cove. During 1968–69, 1,126,812 tons of phosphate were exported to Australia and New Zealand. In addition 96,877 tons of phosphate dust were exported to Malaysia, Singapore and Australia.

Transport and communication

Transport to and from the island is maintained by vessels operated under charter by the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore, and other vessels carry phosphate to Australian ports and New Zealand.

A post office and internal telephone system are operated by the Administration. The latter comprises four automatic exchanges and three small subscriber-attended exchanges. A radio station is used for messages via Perth and Singapore and for communication with ships at sea. A limited broadcasting station commenced operating during 1966–67.

CHAPTER 30

MISCELLANEOUS

This chapter comprises statistics and other descriptive information not directly related to the subjects of the preceding chapters, or which it is convenient to assemble in single sections, arranged as follows: Valuation of Australian production; Indexes of farm production; Consumption of foodstuffs and beverages; Retail trade; Interstate trade; Statistical organisation in Australia; Statistical and other official publications of Australia.

VALUATION OF AUSTRALIAN PRODUCTION

The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published in the following tables have been compiled by the Statisticians in the various States from the latest and best data available and are on a substantially uniform basis. However, marketing costs are not on a completely comparable basis between States and, in addition, accurate information is difficult to obtain for many items. In consequence, differences between States in the relationships of local to gross value should be treated with some reserve.

Attention is directed to the fact that the values shown in the tables herein refer only to the production of primary industries and factories, and exclude the building and construction industry, those industrial establishments not classified as factories, and certain agricultural and farmyard produce obtained from areas of less than one acre. As explained in the chapter Manufacturing Industry, page 709, factory statistics for 1968–69 were not available in time for inclusion in this issue. On this occasion, therefore, factory production is shown only in the last table in this section, which contains information for previous years.

Explanation of terms used

The following is a brief explanation of the terms used.

(*a*) *Gross value of production* is the value placed on recorded production at the wholesale price realised at the principal markets. In general, the 'principal markets' are the metropolitan markets in each State. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.

(*b*) *Local value* (i.e. gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.

(*c*) *Net value of production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays, and other costs. No deductions have been made for depreciation or certain maintenance costs, as particulars are not available for all States. The net value of production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

For the years shown in the following tables, no allowance for power, power kerosene, petrol, and other oils has been made in New South Wales. In the case of the mining and quarrying industry, however, this allowance has been made in all States. Marketing costs for mining and quarrying and costs of materials used in the process of production in respect of bee-farming, trapping, forestry, and fisheries are not available for all States. Local values have been used for these industries, with consequent understatement in gross value for the mining and quarrying industry and overstatement in net value for the other industries. Because of revisions, some figures differ from corresponding figures in earlier chapters of this Year Book.

Value of production, Australia

GROSS, LOCAL AND NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES: AUSTRALIA, 1968–69

($'000)

Industry	*Gross production valued at principal markets*	*Local value—gross production valued at place of production*	*Net value of production (without deduction of depreciation or maintenance)*
Agriculture	1,723,245	1,425,668	1,212,684
Pastoral	1,536,817	1,413,050	1,191,279
Dairying	513,742	483,998	376,843
Poultry	179,160	160,753	71,209
Bee-farming	3,021	2,589	(*a*)2,589
Total, rural	*3,955,982*	*3,486,055*	*2,854,604*
Trapping	12,083	10,564	(*a*)10,564
Forestry	121,177	111,805	(*a*)111,805
Fisheries	62,856	58,415	(*a*)58,415
Mining and quarrying(*b*)	(*a*)858,572	858,572	701,627
Total, non-rural	*1,054,689*	*1,039,352*	*882,408*
Total, all primary	**5,010,672**	**4,525,407**	**3,737,009**

(*a*) Local value. (*b*) Year ended 31 December 1968.

Net value of production

NET(*a*) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES: STATES AND TERRITORIES, 1968–69

($'000)

Industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Agriculture	377,527	247,194	260,839	161,605	136,355	27,920	857	387	1,212,684
Pastoral	349,380	262,707	268,711	106,329	168,728	18,684	15,157	1,583	1,191,279
Dairying	115,087	166,117	40,175	23,253	12,909	18,871	109	322	376,843
Poultry	28,575	25,675	7,191	1,965	4,111	3,378	165	149	71,209
Bee-farming(*b*)	897	396	168	529	503	87	..	9	2,589
Total, rural	*871,465*	*702,089*	*577,083*	*293,682*	*322,606*	*68,940*	*16,289*	*2,450*	*2,854,604*
Trapping(*b*)	3,661	3,400	1,402	899	813	342	47	..	10,564
Forestry(*b*)	33,649	29,577	13,472	8,489	12,591	13,418	238	371	111,805
Fisheries(*b*)	9,807	5,265	7,679	6,773	23,600	4,100	1,191	..	58,415
Mining and quarrying(*c*)	239,496	47,875	155,201	36,285	168,593	32,628	20,635	914	701,627
Total, non-rural	*286,613*	*86,117*	*177,753*	*52,444*	*205,597*	*50,487*	*22,112*	*1,285*	*882,408*
Total, all primary	**1,158,076**	**788,206**	**754,836**	**346,125**	**528,203**	**119,427**	**38,401**	**3,735**	**3,737,009**

(*a*) *See* text on page 1013. (*b*) Local value. (*c*) Year ended 31 December 1968.

NET(*a*) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES PER HEAD OF POPULATION STATES, 1968-69

($)

Industry	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*(*b*)
Agriculture	85.22	73.66	148.93	142.30	146.79	72.39	99.63
Pastoral	78.86	78.28	153.42	93.63	181.63	48.44	97.87
Dairying	25.98	49.50	22.94	20.48	13.90	48.93	30.96
Poultry	6.45	7.65	4.11	1.73	4.43	8.76	5.85
Bee-farming(*c*)	0.20	0.12	0.10	0.47	0.54	0.23	0.21
Total, rural	*196.71*	*209.22*	*329.48*	*258.61*	*347.28*	*178.75*	*234.53*
Trapping(*c*)	0.83	1.01	0.80	0.79	0.88	0.89	0.87
Forestry(*c*)	7.59	8.81	7.69	7.48	13.55	34.79	9.18
Fisheries(*c*)	2.21	1.57	4.38	5.96	25.41	10.63	4.80
Mining and quarrying(*d*)	54.06	14.27	88.61	31.95	181.49	84.60	57.64
Total, non-rural	*64.69*	*25.66*	*101.49*	*46.18*	*221.32*	*130.90*	*72.50*
Total, all primary	**261.40**	**234.88**	**430.97**	**304.79**	**568.61**	**309.65**	**307.02**

(*a*) *See* text on page 1013. (*b*) Includes Northern Territory and Australian Capital Territory. (*c*) Local value. (*d*) Year ended 31 December 1968.

NET(*a*) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES: AUSTRALIA, 1964-65 TO 1968-69

($'000)

Industry	*1964–65*	*1965–66*	*1966–67*	*1967–68*	*1968–69*
Agriculture	975,164	857,913	1,209,003	899,425	1,212,684
Pastoral	1,194,438	1,159,500	1,181,848	1,044,436	1,191,279
Dairying	360,737	349,853	371,939	371,306	376,843
Poultry	50,916	62,636	69,908	64,151	71,209
Bee-farming(*b*)	4,118	3,515	3,278	3,806	2,589
Total, rural	*2,585,373*	*2,433,414*	*2,835,976*	*2,383,122*	*2,854,604*
Trapping(*b*)	13,060	13,824	11,948	10,547	10,564
Forestry(*b*)	107,421	111,039	108,946	109,993	111,805
Fisheries(*b*)	38,685	41,725	44,574	54,003	58,415
Mining and quarrying(*c*)	400,119	443,853	514,534	568,065	701,627
Total, non-rural	*559,283*	*610,443*	*680,004*	*742,609*	*882,408*
Total, all primary	**3,144,656**	**3,043,859**	**3,515,979**	**3,125,773**	**3,737,009**
Factories	5,896,754	6,251,861	6,877,001	7,430,853	(*d*)
Grand total	**9,041,410**	**9,295,720**	**10,392,980**	**10,556,586**	(*d*)

(*a*) *See* text on page 1013. (*b*) Local value. (*c*) Year ended 31 December of first year shown. (*d*) Statistics for factories for 1968–69 not yet available. For explanation *see* page 709.

INDEXES OF FARM PRODUCTION

In the first two tables in this section indexes of price and quantum (i.e. value at constant prices) of production are given for the following industrial groups: Agriculture, Pastoral, Dairying, poultry and bee-farming, and All farming combined (including separate indexes for wheat, wool and milk). In the third table indexes of quantum (i.e. value at constant prices) of production, exports and consumption of farm products for food use are shown.

Farm production price indexes

The farm production price indexes shown in the following table relate to average 'prices' of agricultural, pastoral, dairying, poultry and bee-farming products realised at the principal markets of Australia. The 'price' data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year, and the index numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc. of products marketed. The index numbers for any year relate to the average values of products produced or marketed in that year irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. 'Prices' for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index Numbers the average quantities of the relevant commodities *produced* in the period 1923-24 to 1927–28 were used as fixed weights. This series, re-computed to the base average 1936–37 to 1938–39 = 100, was published in earlier issues of the Year Book (*see* No. 43, page 1050). For 1936–37 and later years the original series was replaced in December 1952 by a revised series in which average quantities of each product *marketed* during the period 1946–47 to 1950–51 were used as fixed weights. In the revised series the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All farming index of quantities of crops marketed for livestock feeding in Australia.

FARM PRODUCTION: INDEXES OF PRICES AT PRINCIPAL MARKETS, AUSTRALIA 1954-55 TO 1968-69

(*Base: Average of 3 years ended June 1939 = 100*)

	Agriculture		*Pastoral*		*Dairying, poultry and bee-farming*		*All farming*	
Year	*Wheat*	*Total*	*Wool (shorn and dead)*	*Total*	*All milk*	*Total*	*Products other than wool*	*Total*
1954–55	319	316	540	489	370	371	355	401
1955–56	319	330	468	451	380	392	373	397
1956–57	347	336	607	536	365	386	374	432
1957–58	339	336	473	435	375	382	359	388
1958–59	337	322	370	396	372	386	369	369
1959–60	350	329	440	464	383	402	391	403
1960–61	355	349	397	443	384	402	403	401
1961–62	380	348	412	421	373	373	376	385
1962–63	366	334	449	450	380	388	378	396
1963–64	356	351	531	511	382	402	398	431
1964–65	351	351	437	460	403	423	408	415
1965–66	372	354	458	501	395	422	423	431
1966–67	366	350	433	496	388	418	425	427
1967–68	397	371	382	457	380	413	429	417
1968–69	337	334	408	488	391	424	424	420

Indexes of quantum (i.e. value at constant prices) of farm production

The indexes shown in the following table relate to gross output of farm products valued at constant prices. They have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the base years.

In the original published series the period 1923–24 to 1927–28 was adopted as the base for revaluing each farm product. This series, re-computed to the base: average 1936–37 to 1938–39 = 100, was published in earlier issues of the Year Book (*see* No. 43 page 1051). For 1936–37 and later years the original series was replaced in December 1952 by a revised series in which average unit values for the period 1936–37 to 1938–39 were used. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All farming index, of quantities of crops fed to livestock in Australia.

INDEXES OF QUANTUM(*a*) OF FARM PRODUCTION: AUSTRALIA 1954-55 TO 1968-69

(*Base: Average of 3 years ended June 1939 = 100*)

Year	*Agriculture*		*Pastoral*		*Dairying, poultry and bee-farming*		*All farming*	
	Wheat	*Total*	*Wool (shorn and dead)*	*Total*	*All milk*	*Total*	*Products other than wool*	*Total*
1954–55 .	102	120	132	127	116	117	120	123
1955–56 .	119	134	146	136	123	120	127	131
1956–57 .	82	120	164	148	119	117	121	131
1957–58 .	59	109	148	142	111	114	116	124
1958–59 .	131	165	164	159	120	119	145	149
1959–60 .	121	140	172	163	123	123	136	144
1960–61 .	166	177	165	152	116	120	148	152
1961–62 .	150	163	174	160	125	128	150	155
1962–63 .	186	191	170	163	129	129	165	166
1963–64 .	199	196	183	172	131	131	171	174
1964–65 .	224	218	183	172	132	136	180	181
1965–66 .	158	184	169	163	133	138	165	166
1966–67 .	283	265	180	167	140	145	205	199
1967–68 .	168	189	180	174	132	141	173	175
1968–69 .	330	292	199	186	133	143	219	215

(*a*) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (*see* text preceding table).

Farm products for food use: indexes of quantum (i.e. value at constant prices) of production, exports and consumption

The indexes shown in the following table have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the years 1936–37 to 1938–39. The items included comprise products in the form in which they are sold from farms in all cases except livestock sold for slaughter for meat, which are included in terms of dressed carcass weight of meat. Quantity data relating to exports include exports of processed food in terms of farm product equivalent. The indexes of production relate basically to gross output of farm products for food use, including crops exported for stock-feeding overseas.

FARM PRODUCTS FOR FOOD USE: INDEXES OF QUANTUM(*a*) OF PRODUCTION, EXPORTS AND CONSUMPTION AUSTRALIA, 1954–55 TO 1967–68

(*Base: average of 3 years ended June 1939 = 100*)

Year	*Production*		*Exports*		*Consumption in Australia*	
	Total	*Per head of total population*	*Total*	*Per head of total population*	*Total*	*Per head of total population*
1954–55	121	91	117	89	127	96
1955–56	129	95	131	97	131	97
1956–57	123	88	118	85	136	98
1957–58	115	81	90	64	139	98
1958–59	146	101	137	94	142	98
1959–60	138	93	132	89	145	98
1960–61	148	98	170	112	143	95
1961–62	154	99	161	104	150	97
1962–63	168	107	187	119	154	98
1963–64	175	109	207	129	159	99
1964–65	185	112	219	134	163	99
1965–66	167	100	181	108	162	97
1966–67	197	115	243	143	167	98
1967–68	178	102	194	112	171	98

(*a*) Indexes of value at constant prices, i.e. quantities revalued at average unit values for the base years (*see* text preceding table).

CONSUMPTION OF FOODSTUFFS AND BEVERAGES

Quantities consumed

The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from the sum of production and imports and allowing for recorded movements in stocks of the respective commodities. While the estimates may be generally accepted as being reasonably accurate, there are some deficiencies to which attention should be directed. These relate chiefly to the quantities of fish, rabbits and hares and the quantities of certain oils and fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc. which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at 'producer' level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years wastage of foodstuffs has possibly been less than previously because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by production by householders for their own requirements. In most cases broad estimates of non-commercial (householders') production have been made. Except in a few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. It is felt that the foregoing deficiencies do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs and beverages is contained in the statistical bulletin: *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients*, issued by this Bureau.

The following tables show the average annual consumption during the three-year periods ended 1938–39, 1948–49 and 1958–59, together with the data for each of the years 1966–67, 1967–68 and 1968–69. Because of revisions, figures for some items in the following tables differ from corresponding figures in earlier chapters of this Year Book.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA, 1936-37 TO 1968-69

Commodity		*Average three years ended—*					
		1938–39	*1948–49*	*1958–59*	*1966–67*	*1967–68*	*1968–69p*
Milk and milk products—							
Fluid whole milk	mil. gal	161	233	276	330	338	340
Fresh cream	'000 tons	19.7	5.1	8.7	10.5	10.6	10.9
Condensed, concentrated and evaporated milk—							
Full cream—							
Sweetened	,,	13.2	11.9	11.3	11.4	14.8	11.6
Unsweetened	,,		13.6	27.6	(*a*)40.7	(*a*)38.9	(*a*)40.7
Skim	,,	n.a.	n.a.	5.6	11.1	8.5	6.2
Powdered milk—							
Full cream	,,	8.1	11.0	11.0	8.9	10.7	9.8
Skim	,,	. .	1.9	10.7	(*b*)44.6	(*b*)48.0	(*b*)55.0
Infants' and invalids' foods	,,	3.0	4.3	9.4	19.6	13.1	14.8
Cheese	,,	13.4	18.8	25.0	40.7	40.0	42.8
Total milk and milk products (in terms of milk solids)	,,	*120.5*	*167.4*	*212.4*	*291.0*	*298.8*	*306.8*
Meat—							
Beef and veal (carcass weight)	,,	430.3	372.7	538.4	445.4	477.6	490.3
Mutton	,,	184.1	154.0	221.6	215.8	221.8	222.3
Lamb	,,	46.0	86.1	127.7	222.1	230.0	268.2
Pigmeat	,,	26.2	24.3	43.6	70.2	77.9	87.7
Offal	,,	25.7	30.3	49.7	57.7	60.6	61.1
Canned meat (canned weight)	,,	6.5	9.0	17.9	27.0	25.5	26.9
Bacon and ham (cured carcass weight)	,,	31.5	39.9	30.5	42.1	41.1	42.4
Total meat (in terms of carcass equivalent weight)	,,	*769.9*	*736.9*	*1,054.1*	*1,099.3*	*1,157.7*	*1,221.4*

For footnotes *see* next page.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA, 1936–37 TO 1968–69—*continued*

Commodity		*Average three years ended—*					
		1938–39	*1948–49*	*1958–59*	*1966–67*	*1967–68*	*1968–69p*
Poultry, fish, rabbits and hares—							
Poultry, rabbits and hares (dressed weight)	'000 tons	n.a.	n.a.	n.a.	96.0	109.5	118.5
Fish (edible weight)—							
Fresh—							
Australian origin	,,	19.7	19.4	13.8	16.3	16.2	17.9
Imported	,,			9.0	17.4	18.5	20.5
Cured (including smoked and salted)	,,			3.8	3.4	4.1	4.7
Crustaceans and molluscs	,,	2.1	2.1	3.8	9.3	11.2	9.1
Canned—Australian origin	,,	12.4	10.5	3.3	4.5	3.7	4.8
Imported	,,			7.4	12.5	11.9	11.5
Total poultry, fish, rabbits and hares (edible weight)	,,	*n.a.*	*n.a.*	*n.a.*	*118.8*	*128.8*	*137.0*
Eggs and egg products (in terms of eggs in shell)—							
Eggs in shell	,,	78.7	86.5	92.1	(*c*)134.6	(*c*)137.1	(*c*)139.9
Egg pulp	,,	2.9	8.6	5.7	(*c*)8.1	(*c*)10.7	(*c*)11.7
Egg powder	,,	. .	. .	0.2	(*c*)0.9	(*c*)0.8	(*c*)0.6
Total eggs and egg products	,,	*81.6*	*95.1*	*98.0*	(*c*)*143.6*	(*c*)*148.6*	(*c*)*152.2*
	mil. doz	*139.3*	*162.3*	*167.3*	*214.5*	*221.9*	*227.3*
Fats and oils—							
Butter	'000 tons	101.4	84.7	118.4	114.1	115.2	114.8
Margarine—							
Table	,,	2.8	3.0	n.a.	21.6	15.4	16.2
Other	,,	12.2	18.7	21.2	33.9	39.6	44.5
Vegetable oils and other fats	,,	19.6	18.0	19.6	23.5	24.0	24.5
Total fats and oils (fat content)	,,	*115.5*	*105.5*	*n.a.*	*165.3*	*166.2*	*171.3*
Sugar and syrups—							
Refined sugar—							
As sugar	'000 tons	216.5	234.6	259.0	241.8	254.7	245.1
In manufactured products	,,	110.1	174.2	226.1	321.4	313.6	339.7
Honey, glucose and syrups (sugar content)	,,	17.3	19.1	22.8	36.9	40.1	
Total sugar and syrups (sugar content)	,,	*343.9*	*427.9*	*507.9*	*600.1*	*608.4*	
Pulse and nuts—							
Dried pulse	,,	4.5	7.4	11.1	19.5	13.1	
Peanuts (weight without shell)	,,	2.8	8.7	7.2	13.8	15.5	
Edible tree nuts (weight without shell)	,,	2.6	4.4	6.7	10.6	10.8	11.6
Cocoa (raw beans)	,,	6.3	11.6	12.1	17.8	19.0	
Total pulse and nuts	,,	*16.2*	*32.1*	*37.1*	*61.6*	*58.4*	
Fruit—							
Citrus fruit(*d*)	,,	97.8	127.2	153.8	254.8	247.1	290.5
Other fresh fruit	,,	288.2	297.5	341.4	417.2	466.9	535.0
Jams	,,	35.1	42.5	37.5	38.2	39.3	39.6
Dried fruit	,,	24.8	30.0	26.4	29.4	27.1	28.8
Canned fruit	,,	31.9	37.3	59.4	107.0	127.2	116.2
Total fruit (fresh fruit equivalent)	,,	*532.3*	*607.9*	*691.4*	*948.4*	*994.7*	*1,107.6*
Vegetables(*d*)—							
Leafy and green vegetables	,,	n.a.	154.0	172.1	252.7	242.1	251.1
Tomatoes	,,	(*e*)48.0	86.3	124.4	167.6	163.0	168.1
Root and bulb vegetables	,,	n.a.	143.7	152.8	204.1	182.9	215.2
Potatoes—							
White	,,	318.5	424.3	495.4	574.7	587.7	721.2
Sweet	,,	7.4	5.3	6.1	7.3	7.5	7.6
Other vegetables	,,	n.a.	162.8	178.4	206.1	207.3	204.4
Total vegetables	,,	*n.a.*	*976.4*	*1,129.2*	*1,412.0*	*1,390.5*	*1,567.6*
Grain products—							
Flour (including wheatmeal for baking and sharps)	,,	574.0	689.7	789.1	900.9	900.1	922.3
Breakfast foods	,,	32.5	45.8	58.8	74.1	80.3	84.4
Rice (milled)	,,	12.2	3.0	n.a.	27.5	28.2	29.1
Tapioca, sago, etc.	,,	3.7	2.3	1.4	1.0	0.9	0.9
Pearl barley	,,	3.0	1.7	2.0	1.7	1.9	1.7
Total grain products	,,	(*f*)*629.7*	(*f*)*747.4*	*n.a.*	*1,005.2*	*1,011.3*	*1,038.3*
Beverages—							
Tea	,,	21.1	22.1	26.1	27.4	27.1	27.7
Coffee(*g*)	,,	2.0	3.4	5.9	13.3	13.9	14.3
Beer	mil. gal	80.1	129.5	221.0	291.1	306.2	321.8
Wine	,,	4.2	9.8	11.1	17.5	19.8	22.0
Spirits	mil. pf gal	1.5	2.4	2.8	3.7	4.3	4.3

(*a*) Includes ice cream mixes. (*b*) Includes buttermilk and mixed skim and buttermilk. (*c*) Not comparable with data prior to 1960–61, in which year the average weight of an egg was altered in calculations from 1.75 oz to 2 oz. (*d*) Includes fresh equivalent of manufactured products. (*e*) Probably understated owing to lack of complete data. (*f*) Includes an allowance for edible starch (cornflour). (*g*) Coffee and coffee products in terms of processed whole or ground pure coffee.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA, 1936-37 TO 1968-69

Commodity		*Average three years ended—*					
		1938–39	*1948–49*	*1958–59*	*1966–67*	*1967–68*	*1968–69p*
Milk and milk products—							
Fluid whole milk	gallons	23.4	30.5	28.3	28.2	28.3	27.9
Fresh cream	lb	6.1	1.5	2.0	2.0	2.0	2.0
Condensed, concentrated and evaporated milk—							
Full cream—							
Sweetened	"	4.3	3.5	2.6	2.2	2.8	2.1
Unsweetened	"		4.0	6.4	(*a*)7.8	(*a*)7.3	(*a*)7.5
Skim	"	n.a.	n.a.	1.3	2.1	1.6	1.1
Powdered milk—							
Full cream	"	2.6	3.2	2.5	1.7	2.0	1.8
Skim	"	..	0.6	2.5	(*b*)8.5	(*b*)9.0	(*b*)10.1
Infants' and invalids' foods	"	1.0	1.3	2.2	3.7	2.5	2.7
Cheese	"	4.4	5.5	5.7	7.8	7.5	7.9
Total milk and milk products (in terms of milk solids)	"	*39.3*	*49.1*	*48.7*	*55.7*	*56.1*	*56.5*
Meat—							
Beef and veal (carcass weight)	"	140.3	109.1	123.8	85.2	89.7	90.2
Mutton	"	60.0	45.1	51.0	41.3	41.7	40.9
Lamb	"	15.0	25.2	29.3	42.5	43.2	49.4
Pigmeat	"	8.5	7.1	10.1	13.4	14.6	16.2
Offal	"	8.4	8.9	11.4	11.0	11.4	11.2
Canned meat (canned weight)	"	2.1	2.6	4.1	5.2	4.8	4.9
Bacon and ham (cured carcass weight)	"	10.2	11.7	7.1	8.1	7.7	7.8
Total meat (in terms of carcass equivalent weight)	"	*250.9*	*215.7*	*242.4*	*210.3*	*217.4*	*224.8*
Poultry, fish, rabbits and hares—							
Poultry, rabbits and hares (dressed weight)		n.a.	n.a.	n.a.	18.4	20.6	21.8
Fish (edible weight)—							
Fresh—							
Australian origin	"	6.4	5.7	3.2	3.1	3.0	3.3
Imported	"			2.1	3.3	3.5	3.8
Cured (including smoked and salted)	"			0.9	0.6	0.8	0.9
Crustaceans and molluscs	"	0.7	0.6	0.9	1.8	2.1	1.7
Canned—							
Australian origin	"	4.1	3.0	0.8	0.9	0.7	0.9
Imported	"			1.7	2.4	2.2	2.1
Total poultry, fish, rabbits and hares (edible weight)	"	*n.a.*	*n.a.*	*n.a.*	*22.7*	*24.2*	*25.3*
Eggs and egg products (in terms of eggs in shell)—							
Eggs in shell	"	25.7	25.4	21.2	(*c*)25.7	(*c*)25.7	(*c*)25.7
Egg pulp	"	0.9	2.5	1.3	(*c*)1.6	(*c*)2.0	(*c*)2.2
Egg powder	"	..	..	..	(*c*)0.2	(*c*)0.1	(*c*)0.1
Total eggs and egg products	"	*26.6*	*27.9*	*22.5*	(*c*)*27.5*	(*c*)*27.9*	(*c*)*28.0*
	No.	*243*	*255*	*206*	*220*	*223*	*224*
Fats and oils—							
Butter	lb	32.9	24.8	27.2	21.8	21.6	21.1
Margarine—							
Table	"	0.9	0.9	n.a.	4.1	2.9	3.0
Other	"	4.0	5.2	4.9	6.5	7.4	8.2
Vegetable oils and other fats	"	6.4	5.3	4.5	4.5	4.5	4.5
Total fats and oils (fat content)	"	*37.6*	*30.9*	*n.a.*	*31.6*	*31.2*	*31.5*
Sugar and syrups—							
Refined sugar—							
As sugar	"	70.6	68.7	59.6	46.3	47.8	45.1
In manufactured products	"	35.9	51.0	52.0	61.5	58.9	62.5
Honey, glucose and syrups (sugar content)	"	5.5	5.6	5.2	7.1	7.5	
Total sugar and syrups (sugar content)	"	*112.0*	*125.3*	*116.8*	*114.8*	*114.3*	
Pulse and nuts—							
Dried pulse	lb	1.5	2.1	2.6	3.7	2.5	
Peanuts (weight without shell)	"	0.9	2.5	1.7	2.6	2.9	
Edible tree nuts (weight without shell)	"	0.8	1.3	1.5	2.0	2.0	2.1
Cocoa (raw beans)	"	2.1	3.4	2.8	3.4	3.6	
Total pulse and nuts	"	*5.3*	*9.3*	*8.6*	*11.8*	*11.0*	
Fruit—							
Citrus fruit(*d*)	lb	31.9	37.2	35.4	48.7	46.4	53.5
Other fresh fruit	"	94.0	87.1	78.4	79.8	87.7	98.5
Jams	"	11.4	12.4	8.6	7.3	7.4	7.3
Dried fruit	"	8.1	8.7	6.0	5.6	5.1	5.3
Canned fruit	"	10.4	11.0	13.6	20.5	23.9	21.4
Total fruit (fresh fruit equivalent)	"	*173.6*	*178.0*	*157.6*	*181.4*	*186.8*	*203.8*

For footnotes *see* next page.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA
1936–37 TO 1968–69—*continued*

Commodity		*Average three years ended—*					
		1938–39	*1948–49*	*1958–59*	*1966–67*	*1967–68*	*1968–69p*
Vegetables(*d*)—							
Leafy and green vegetables	lb	n.a.	45.1	39.5	48.3	45.5	46.2
Tomatoes	"	(*e*)15.7	25.3	28.6	32.1	30.6	30.9
Root and bulb vegetables	"	n.a.	42.1	35.1	39.0	34.3	39.6
Potatoes—							
White	"	103.8	124.2	113.9	109.9	110.4	132.7
Sweet	"	2.4	1.5	1.4	1.4	1.4	1.4
Other vegetables	"	n.a.	47.7	41.0	39.4	38.9	37.6
Total vegetables	"	*n.a.*	*285.9*	*259.5*	*270.1*	*261.1*	*288.5*
Grain products—							
Flour (including wheatmeal for baking and sharps)	"	187.1	201.9	181.5	172.4	169.0	169.7
Breakfast foods	"	10.6	13.4	13.5	14.2	15.1	15.5
Rice (milled)	"	4.0	0.9	n.a.	5.3	5.3	5.4
Tapioca, sago, etc.	"	1.2	0.7	0.3	0.2	0.2	0.2
Pearl barley	"	1.0	0.5	0.4	0.3	0.4	0.3
Total grain products	"	*(f)205.3*	*(f)218.8*	*n.a.*	*192.3*	*189.9*	*191.1*
Beverages—							
Tea	"	6.9	6.5	6.0	5.2	5.1	5.1
Coffee(*g*)	"	0.6	1.0	1.3	2.5	2.6	2.6
Beer	gallons	11.7	16.9	22.7	24.9	25.7	26.4
Wine	"	0.6	1.3	1.1	1.5	1.7	1.8
Spirits	pf gal	0.2	0.3	0.3	0.3	0.4	0.4

(*a*) Includes ice cream mixes. (*b*) Includes buttermilk and mixed skim and buttermilk. (*c*) Not comparable with data prior to 1960–61, in which year the average weight of an egg was altered in calculations from 1.75 oz to 2 oz. (*d*) Includes fresh equivalent of manufactured products. (*e*) Probably understated owing to lack of complete data. (*f*) Includes an allowance for edible starch (cornflour). (*g*) Coffee and coffee products in terms of processed whole or ground pure coffee.

Level of nutrient intake

The next table shows details of the estimated supplies of nutrients available for consumption in Australia during the years 1967–68 to 1968–69 in comparison with the annual averages for the three-year periods ended 1938–39, 1948–49 and 1958–59. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

ESTIMATED SUPPLY OF NUTRIENTS AVAILABLE FOR CONSUMPTION AUSTRALIA, 1936-37 TO 1968-69
(Per head per day)

Nutrient		*Average three years ended—*			*1967–68*		*1968–69p*
		1938–39	*1948–49*	*1958–59*	(*a*)	(*b*)	(*b*)
Kilocalories		3,117	3,245	3,297	3,261	3,254	3,364
Protein—							
Animal	g	58.7	57.4	59.6	62.9	64.2	61.5
Vegetable	"	30.9	35.3	32.3	31.5	34.3	40.3
Total	"	89.6	92.7	91.9	94.4	98.5	101.8
Fat	"	133.5	121.7	131.7	128.6	122.8	125.4
Carbohydrate	"	377.4	424.8	416.7	435.1	405.2	419.2
Calcium	mg	642	785	817	979	963	985
Iron	"	15.4	15.1	14.0	14.1	14.6	15.1
Vitamin A	I.U.	4,905	4,630	4,568	4,309	(*c*)1,443	(*c*)1,557
Ascorbic acid	mg	86	96	89	96	88	98
Thiamine	"	1.4	1.5	1.3	1.3	1.6	1.7
Riboflavin	"	1.7	1.9	1.8	2.3	2.8	2.8
Niacin	"	18.7	17.6	18.6	19.2	19.9	20.9

(*a*) Comparable with previous years. (*b*) Not comparable with previous years. Figures are based on conversion factors calculated from the revised and enlarged edition of 'Tables of Composition of Australian Foods'. (*c*) Microgrammes.

NOTE.—One international unit of vitamin A activity is equivalent to 0.3 microgrammes of retinol.

RETAIL TRADE

The statistics in this section relate to retail establishments throughout Australia and the value of retail sales of goods by these establishments.

Information of this nature was first collected in respect of the year ended 30 June 1948 by a full census of all retail establishments. As this was the first census of its type in Australia, its scope and the data sought were the minima consistent with the objective of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods, and a simple commodity dissection, together with a record of the value of certain services provided. This census was followed by a second census of all retail establishments trading during the year ended 30 June 1949.

Further censuses were taken in respect of the years ended 30 June 1953, 1957 and 1962. In these censuses retailers were asked to furnish more detailed information concerning the dissection of their turnover into commodity groups, and questions were asked about stocks of goods on hand, the number of persons engaged in retail activities, and credit sales. In addition, the 1956–57 and 1961–62 censuses included questions relating to purchases, customers' indebtedness and type of organisation.

A census was taken for the year ended 30 June 1969 as part of the Integrated Economic Censuses programme (*see* Chapter 31), but it is anticipated that preliminary results will not become available until early 1971. Major changes were made to concepts and classifications in the Census of 1968–69 to allow standardisation within the Integrated Economic Census framework.

The most recent census for which results are available was taken in respect of the year ended 30 June 1962. In general terms the 1961–62 census covered the retail trading activities of establishments which normally sell goods by retail to the general public from fixed premises (i.e. shops, rooms, kiosks, and yards). Retail activities of wholesalers and manufacturers were included if they sold regularly by retail to the general public. Sales by itinerant vendors (e.g. hawkers, street sellers, etc.) and sales from casual stalls or booths were excluded. Organisations such as clubs and societies making sales to their own members were excluded from the main census collection, but a supplementary collection was made, covering sales by *licensed* clubs.

In general, establishments with retail sales of goods amounting to less than $1,000 in the census year were not included in the 1961–62 census. However, some 'service' establishments with retail sales of less than $1,000 but with takings of $1,000 or more from repairs, meals or hairdressing were included in the main census collection, and details of these establishments are included in tables in Year Book No. 50, page 1244. The types of establishments in this category are boot repairers, repair-only garages, cafes and restaurants, and hairdressers.

In the 1961–62 census particulars of retail sales related principally to sales, to the final consumer, of new and second-hand goods generally used for household and personal purposes. For this reason, sales of building materials, farm and industrial machinery and equipment, earth-moving equipment, etc., were excluded. For the same reason, and also because of difficulties in obtaining reliable and complete reporting, sales of builders' hardware and supplies, business machines and equipment, grain, feed, fertiliser and agricultural supplies, and tractors were excluded from the 1961–62 census. Retail sales of motor vehicles, parts, etc., were included, whether for industrial, commercial, farm, or private use.

During the period between censuses variations in the value of retail sales have been measured by means of quarterly sample surveys. Annual totals derived from these surveys, adjusted to a basis comparable in scope with the 1961–62 census, and some of the results of the 1961–62 census, are included in this section.

Year Book No. 50, pages 1239–45, contains details of the number of retail establishments, the values of retail sales and of retail stocks, and particulars of hairdressing, boot repairing and motor repairing establishments, restaurants, self-service stores and licensed clubs, for each State and Territory, from the results of the 1961–62 census. Major classifications are by commodity groups and type of business. More complete details are set out in published bulletins of the 1961–62 Census of Retail Establishments (*see* page 1028).

Value of retail sales in each commodity group, Australia

The following table shows the value of retail sales of goods in each of the commodity groups specified in the years 1961–62 and 1966–67 to 1969–70 on a comparable basis throughout. The figures for the year 1961–62 were obtained from the census, whereas figures for the other years shown are estimates based on sample surveys.

VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA(*a*) 1961–62 AND 1966–67 TO 1969–70

($ million)

Commodity group	*1961–62*	*1966–67*	*1967–68*	*1968–69*	*1969–70*
Groceries	858.3	1,161.5	1,248.2	1,317.7	1,399.9
Butchers' meat	422.3	590.3	615.5	627.7	667.9
Other food(*b*)	729.9	946.5	999.6	1,029.2	1,097.9
Total, food and groceries	*2,010.5*	*2,698.3*	*2,863.3*	*2,974.6*	*3,165.7*
Beer, wine and spirits(*c*)	545.9	743.8	811.0	863.7	936.8
Clothing and drapery	900.0	1,172.9	1,246.2	1,304.0	1,384.6
Footwear	154.7	197.3	208.9	213.6	229.4
Hardware, china and glassware(*d*)	146.0	175.6	183.4	200.3	221.6
Electrical goods(*e*)	348.0	408.8	445.5	462.0	496.6
Furniture and floor coverings	230.1	322.3	355.9	388.7	423.0
Chemists' goods	265.8	387.5	416.8	453.3	499.3
Newspapers, books and stationery	166.4	235.0	251.9	270.0	292.4
Other goods(*f*)	489.7	701.1	734.7	802.1	867.5
Total (excluding motor vehicles, etc.)	**5,257.1**	**7,042.6**	**7,517.6**	**7,932.3**	**8,516.9**
Motor vehicles, parts, petrol, etc.(*g*)	1,603.2	2,511.1	2,806.8	3,014.9	3,309.8

(*a*) Northern Territory and Australian Capital Territory have been excluded from this table because figures for these two Territories for 1968–69 and 1969–70 are not yet available. (*b*) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread. (*c*) Excludes sales made by licensed clubs. (*d*) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (*e*) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (*f*) Includes tobacco, cigarettes, etc., jewellery, sporting goods, etc., but excludes grain and produce and business machines. (*g*) Includes new and used motor vehicles, parts, petrol, etc., but excludes tractors, farm machinery and implements, earth-moving equipment, etc.

Total value of retail sales, States

TOTAL VALUE OF RETAIL SALES (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) STATES, 1961–62 AND 1966–67 TO 1969–70

($ million)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1961–62	2,060.4	1,517.1	701.6	451.6	360.3	166.1	15.8	33.4	5,306.5
1966–67	2,676.4	2,039.2	960.6	627.1	524.3	215.0	28.8	65.7	7,137.1
1967–68	2,858.8	2,170.2	1,020.0	663.3	577.9	227.4	34.4	74.6	7,626.6
1968–69	3,001.5	2,276.4	1,060.7	704.1	650.8	238.8	n.a.	n.a.	n.a.
1969–70	3,233.0	2,441.4	1,128.3	755.9	706.0	252.3	n.a.	n.a.	n.a.

TOTAL VALUE OF RETAIL SALES OF MOTOR VEHICLES, PARTS, PETROL, ETC., STATES 1961–62 AND 1966–67 TO 1969–70

($ million)

Year	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
1961–62	623.1	431.2	218.0	143.1	133.9	53.9	5.8	13.0	1,622.0
1966–67	967.3	676.8	352.9	214.7	219.5	79.9	11.2	23.8	2,546.1
1967–68	1,080.0	752.3	396.8	241.9	249.7	86.1	16.5	29.7	2,853.0
1968–69	1,174.1	778.8	423.5	260.3	291.9	86.3	n.a.	n.a.	n.a.
1969–70	1,304.9	852.1	456.5	283.4	316.1	96.8	n.a.	n.a.	n.a.

INTERSTATE TRADE

Prior to the federation of the Australian Colonies (now States) each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (section 93). On the expiry of the 'bookkeeping' period these records were discontinued as from 13 September 1910, and the last published statements were for the year 1909. Later, the Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States. A detailed collection for Queensland was re-introduced from July 1953.

At the Conference of Statisticians held in January 1928 it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities. Complete interstate trade statistics are now published in detail for Queensland, Western Australia and Tasmania by the Deputy Commonwealth Statisticians in those States, and incomplete statistics, relating mainly to trade with Western Australia and Tasmania, by the Deputy Commonwealth Statisticians in the remaining States.

STATISTICAL ORGANISATION IN AUSTRALIA

Early development of Australian statistics

Statistical organisation in Australia has its origin in the 'Blue Books' which, in the Crown Colony days, were prepared annually for the information of the Colonial Office. Although intended primarily for administrative purposes, these documents were important sources of statistical data, and formed the basis from which later statistical publications were developed. Following the advent of responsible government, the 'Blue Book' was succeeded in all States by 'Statistical Registers' which, however, were still largely summaries of the 'by-product' statistics of government administrative departments.

The growing need for quantitative data concerning the progress of the several young communities of Australia led eventually to the appointment of official Statisticians commissioned to prepare and publish such data. Conferences were held between the Statisticians to allow for the interchange of ideas between States and to provide for uniform State statistics which could be aggregated to Australian totals. Altogether, six conferences were held prior to the formation of the Commonwealth Bureau of Census and Statistics in 1906—in 1861, 1875, 1890, 1900, 1902 and 1903. The holding of these conferences has been continued since the formation of the Commonwealth Bureau, and a representative from New Zealand attended up to 1928.

Creation of the Commonwealth Bureau of Census and Statistics

Under the provisions of Section 51 of the Commonwealth Constitution, power is conferred on the Commonwealth Parliament 'to make laws for the peace, order, and good government of the Commonwealth with respect to . . .' (*inter alia*) '(XI.) Census and Statistics'. Accordingly the *Census and Statistics Act* 1905 was passed, and in 1906 the Commonwealth Bureau of Census and Statistics was created. A conference of Statisticians in 1906 defined the relations between the Commonwealth and State Bureaux, and in each case the State Statistician became the representative in his own State of the Commonwealth Statistician for the purpose of administering the Commonwealth Act. In addition, each State had its own 'Statistics Act', and although these were not identical for all States, they embodied common principles. The Commonwealth Bureau did not attempt to duplicate the existing State statistical organisations, but endeavoured to use their services whenever possible, undertaking the initial collection of statistics only in fields not covered by the States, or in which efficiency demanded complete centralisation.

Integration of statistical services

The creation and development of the Commonwealth Bureau of Census and Statistics, the frequent conferences of Commonwealth and State Statisticians, and the close and increasing liaison between officers dealing with the same subjects in the State and Commonwealth fields did much to promote uniformity in official statistics and methods employed in their collection throughout Australia. The complete realisation of this aim could not, however, be achieved with seven separate statistical systems, even with the utmost co-operation of those concerned. This became apparent when economic problems following the 1914–18 War drew attention to deficiencies in Australian statistical data.

The first step towards integration was taken in 1924, when, in response to a proposal by the Prime Minister to the Premiers' Conference that State and Commonwealth Statistical Bureaux be amalgamated, the Tasmanian office was transferred to the Commonwealth. (Other States did not agree to the proposal at that time.) The Tasmanian office has since functioned as a Commonwealth office which also serves State statistical needs.

The varied economic and social problems of the 1920's and 1930's, the 1939–45 War and the post-war boom, and the development during and since the war of a volume of new statistics, imposed a severe strain on the statistical systems and increased the complexities of the several administrations in their efforts to secure and maintain uniformity in statistical collections.

The difficulties of maintaining efficient statistical services were further emphasised during the immediate post-war years when the problems of planning for post-war reconstruction greatly increased the demand for current economic statistics. In 1949, discussions with the Premiers were initiated by the Prime Minister, with the object of integrating the statistical services of the Commonwealth and the States by agreement. Following negotiations, all State Governments accepted the terms of draft agreements to integrate their respective statistical offices with that of the Commonwealth, and effect was given to this by the *Statistics (Arrangements with States) Act* 1956. This legislation, permissive in nature, was designed to enable the Commonwealth to enter into an agreement with any State to effect an amalgamation of Commonwealth and State statistical offices and services. The object of such an agreement was to establish an integrated statistical service, with branches in each State, operated by Commonwealth statistical officers under the immediate direction of a Deputy Commonwealth Statistician who would hold office under both the Commonwealth and State Governments. Both Commonwealth and State were to be adequately served with statistics, and no State would be required to surrender its existing powers in the field of statistics. Integration of the Commonwealth and State statistical services was finally accomplished when the integration arrangement with Victoria came into effect on 15 September 1958.

The relationships which at present obtain between the Bureau and the several State Governments are a reflection of these agreements. Each State has retained its power to collect statistics under State laws, but the Commonwealth provides the staff and the funds, and is responsible for all statistical work required by both Commonwealth and State Governments. Conferences of the Commonwealth and Deputy Commonwealth Statisticians are held annually to discuss current and projected future operations of the Bureau.

Under the system as it now operates, Deputy Commonwealth Statisticians and their staffs provide the principal avenue of contact between State Government agencies and other State users and suppliers of statistical information. For the most part, negotiations with Commonwealth agencies and other national users and suppliers of statistical information are undertaken by the Commonwealth Statistician and his Central Office staff. However, the division of responsibility between the Bureau's Central and State Offices in the matter of relationships with users and suppliers of statistical information is by no means as precise as might be assumed from the above remarks. The statistical services are highly integrated and operate as one unit rather than as seven separate Bureaux. In general, it might be said that moves to develop new statistical series or to modify existing ones for State purposes are normally initiated by Deputy Statisticians, whereas moves to develop new or modified series for national socio-economic policy purposes are usually initiated by the Commonwealth Statistician.

Scope of the Commonwealth Bureau of Census and Statistics

The scope of the Commonwealth Bureau of Census and Statistics has continually been widened. Additional requirements in the administrative, industrial, financial and scientific spheres have led to the development of many new statistical collections. All these activities are covered by the Census and Statistics Act, which empowers the Statistician to collect information and contains stringent provisions to ensure that the secrecy of information provided by individual persons and businesses is preserved.

In the Australian centralised official statistical service, it is recognised that there is a danger that official statisticians may become isolated from the thinking of the users of statistics and insensitive to the problems of the firms or individual persons whose responsibility it is to supply statistical information. The dangers inherent in this situation are for the most part obviated by the six State Offices of the Bureau keeping in very close contact with the individual businesses which use statistics and supply statistical information, and special steps are taken to ensure that users have adequate scope for expression of their needs and that requests by the Bureau for information are kept within reasonable and practical limits. The methods towards this end which have been adopted in the Bureau are reflected in its organisational structure. The organisation is on the basis of specialist subject-matter branches, and to each relatively narrow field of socio-economic activity there is a corresponding branch within the Bureau which is responsible for obtaining statistics and providing statistical services. Thus, in the Central Office, there are specialist branches dealing with primary industries; secondary industries; wholesale and retail trade; employment; finance; population and vital statistics; etc. A broadly similar organisational pattern exists in State Offices of the Bureau, although local requirements have naturally given rise to differences in detail.

Organisation of the Central Office of the Commonwealth Bureau of Census and Statistics

The Central Office of the Bureau is organised functionally into the following branches, listed alphabetically. As shown below, these branches are further sub-divided into specialist subject matter sections.

Demography and Employment Branch. Demographic and Social; Employment and Field Survey Operations; Population Research.

Integration, Classification and Private Finance Branch. Integration; Classification; Private Finance.

National Accounts and Public Finance Branch. Public Finance and Taxation; National Income and Expenditure; Inter-industry and Sector Financial Accounts.

Overseas Transactions Branch. Balance of Payments; Overseas Trade and Shipping.

Population Census Branch. Classification Research; Field Organisation and Mapping; Operations.

Prices and Labour Branch. Labour and Retail Prices; Quantum Indexes and Wholesale Prices.

Production and Distribution Branch. Internal Trade; Primary Industry; Secondary Industry.

Sampling and Methodology Branch. Sampling; Methodology; Special Projects.

Services Branch. Establishments and Finance; Publications; Secretariat.

In addition to the above-mentioned branches, the Bureau's *Computer Service Centre* operates the largest computer network in Australia and one of the largest used for statistical purposes in the world. It comprises a Control Data 3600 and two 3300 computers in Canberra, 3300, 3200 and 160-A computers in Sydney and Melbourne, 3200 and 160-A computers in Brisbane and 3200 computers in the remaining State capitals. All installations use a full complement of peripheral devices. Mass storage and interrogation facilities are available at Canberra, Sydney and Melbourne.

At 30 June 1970 the staff of the Bureau numbered 3,421, of whom 639 were university graduates. Of the total staff, 1,355 were employed in the Bureau's Central Office in Canberra. Expenditure for the year 1969–70 amounted to $17,567,335.

Relation of the Bureau to other Commonwealth Departments

The Commonwealth Statistician is the co-ordinating authority on all statistical activities in Commonwealth Departments, and where any new statistical field is to be established involving the regular collection of statistics, the Commonwealth Statistician must be consulted to ensure that they are necessary and that they are based on sound statistical methods; furthermore, the Commonwealth Statistician is empowered to make regular inspections of all statistical work undertaken in Departments to ensure that their needs are being met by the most economical means and without duplication of effort.

The Bureau provides methodological and general statistical advice to Commonwealth Departments and instrumentalities from time to time as required. However, for a small number of Departments, which have a continuing need for specialised statistical services, the Bureau provides, from its own staff, the key personnel to serve these needs.

STATISTICAL AND OTHER OFFICIAL PUBLICATIONS OF AUSTRALIA

The official statistical publications of Australia may be divided bibliographically into two main divisions, namely: (i) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only. Commonwealth publications containing statistics may be grouped under two heads, namely: (i) publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers. State publications may similarly be grouped into publications issued by the Deputy Commonwealth Statistician in each State and State Parliamentary and Departmental Reports and Papers. The statistics contained in the second group in each case are in the main incidental to the primary purpose of the particular report or paper.

Publications issued by the Commonwealth Statistician

Principal statistical publications issued to date

The following is a list of the principal statistical publications issued from the Central Office of the Commonwealth Bureau of Census and Statistics since its inauguration. Minor changes in titles have not been referred to. Copies of a number of these publications, particularly earlier issues, are not now available.

Australian Capital Territory Statistical Summary. Annually, 1963 to 1970.

Balance of Payments, half-yearly, 1946–47 to 1969–70.

Balance of Payments, Australia. Statements Nos 1 to 3, 1928–29 to 1951–52.

Banking and Currency. Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1968–69.

‡*Building and Construction*. Bulletin, annually, 1964–65 to 1967–68.

Causes of Death. Bulletin, annually, 1963 to 1967.

Census (1911) *Results*. Bulletin. Vols I (Statistician's Report), II and III, with Appendix *Mathematical Theory of Population*.

Census (1921) *Results*. Bulletins, Nos 1 to 26. Parts I to XVI, forming Vol. I, and Parts XVII to XXIX (Part XXVII, Life Tables), forming, with the Statistician's Report, Vol. II.

Census (1933) *Results*. Bulletins, Nos 1 to 25. Parts I to XIV, forming Vol. I, Parts XV to XXVIII, forming Vol. II, and Parts XXIX to XXXVII, forming, with the Statistician's Report and Australian Life Tables, 1932–1934, Vol. III.

Census (1947) *Results*. Bulletins, Nos 1 to 25. Parts I to XVI, forming Vol. I, Parts XVII to XIX, forming Vol. II, and Parts XX to XXVIII, forming with the Statistician's Report and Australian Life Tables, 1946–1948, Vol. III.

Census (1954) *Results*. Bulletins, Nos 1 to 3. Vols I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; Vol, VIII, comprising Parts I to III for Australia, Australian Life Tables, 1953–1955, and the Statistician's Report.

Census (1961) *Results*. Vols I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; and Vol. VIII, comprising Parts I to III for Australia, Australian Life Tables, 1960–1962, and the Statistician's Report.

Census (1966) *Results*. Summarised results for each State and Territory and for Australia have been published in a series of mimeographed bulletins available from the Commonwealth Statistician, and the volumes containing the final figures are being issued progressively (*see* pages 1037–8).

**Conference of British Commonwealth Statisticians*, 1951, *Report of Proceedings*.

**Dairying Industry* (formerly *Summary of Dairying Industry*). Statistical Bulletin, monthly and half-yearly; first issue, September 1937.

Demography. Bulletin, annually, 1911 to 1966. Commencing 1963, excludes details of causes of death, *see Causes of Death*.

**Digest of Current Economic Statistics*. Monthly from August 1959 onward.

**Export Commodity Classification, Australian*. Annually, 1966–67 to 1969–70 (sectional revisions).

Exports, Australian. Annually, 1958–59 to 1969–70.

**Factories, Principal Statistics, Summary*. Annually, 1948–49 to 1967–68.

Finance, Bulletin, 1907 to 1960–61. Commencing 1955–56, issued in two parts—Part I, Public and Private Finance; Part II, Commonwealth Taxation. Commencing 1961–62, issued as five separate bulletins, *see* Banking, Finance (2), Insurance, and Taxation.

Finance, Commonwealth. Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1969–70.

Finance, State, Territory and Local Government Authorities', and Government Securities. Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1967–68.

**Food Production and the Apparent Consumption of Foodstuffs and Nutrients, Report on*. Statistical Bulletin, half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1968–69.

**Fruit Growing Industry* (formerly *Summary of Fruit Growing Industry*). Statistical Bulletin, annually, 1944–45 to 1968–69.

**Import Commodity Classification, Australian*. Annually, 1965–66 to 1969–70 (sectional revisions).

Imports, Australian. Bulletin, annually, 1967–68 ana 1969–70.

Imports Cleared for Home Consumption. Annually, 1950–51 to 1968–69.

Insurance and Other Private Finance (other than Banking and Currency). Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1967–68.

Labour and Industrial Statistics. Memoranda and Reports, various, to 1922.

Labour Report, 1913 to 1967.

Life Tables, Australian, 1901–1910. *Australian Joint Life Tables*, 1901–1910.

Life Tables, Australian, 1920–1922.

Life Tables, Australian, 1932–1934. *Australian Joint Life Tables*, 1932–1934.

Life Tables, Australian, 1946–1948.

Life Tables, Australian, 1953–1955.

Life Tables, Australian, 1960–1962.

**Livestock Numbers* (formerly *Summary of Livestock Statistics*). Statistical Bulletin, annually, 1943 to 1969.

Local Government in Australia. July 1919.

Manufacturing Commodities. Bulletin, annually, 1963–64 and 1964–65 (combined issue) and 1965–66.

For footnotes *see* page 1029.

Manufacturing Industries. Bulletins on individual industries, annually, 1936–37 to 1939–40, 1940–41 (issue incomplete) and 1944–45 to 1967–68.†

Manufacturing Industry. Bulletin, annually, 1963–64 to 1967–68.

Manufacturing Industry, Australian, Overseas Participation in, Part 1.—Overseas Ownership and *Part 2.—Overseas Control*, 1962–63 and 1966–67.

‖*Mineral Industry, The Australian* (formerly *Minerals and Metals Bulletin*). Part 2—*Quarterly Statistics* of a quarterly bulletin issued jointly with the Bureau of Mineral Resources.

Mining Industry, Australian, Overseas Participation in, annually, first issue, 1967.

Monthly Review of Business Statistics. October 1937 onward.

Motor Vehicles, Census of, 31st December, 1955. Bulletins, Nos 1 to 8.

Motor Vehicles, Census of, 31st December, 1962. Bulletins, Nos 1 to 9.

Motor Vehicles, Survey of (1947–48), *Results*. Bulletins, Nos 1 to 7.

National Accounts, Australian (*National Income and Expenditure*), 1948–49 to 1961–62, first issue, mimeographed*, to 1968–69.

§*Non-rural Primary Industries*. Bulletin, annually, 1964–65 and 1965–66 and 1966–67 (combined issue).

Non-rural Primary Industries and Value of Production. Bulletin, annually, 1962–63 and 1963–64. (Commencing 1964–65 issued as two separate Bulletins, *see Non-rural Primary Industries*, and *Value of Production*).

Northern Territory Statistical Summary. Annually, 1960 to 1970.

**Occupation Survey* (1945) *Results*. Detailed tables.

Official Year Book of the Commonwealth of Australia. 1907 to present issue (No. 56). Issues Nos 40 to 51 also published in parts.

Pocket Compendium of Australian Statistics (formerly *Statistical Digest*). 1913, 1914, 1916 and 1918 to 1970, annually.

Population and Vital Statistics. Bulletins and Reports, various, 1906–1910.

Primary Industries. Bulletins, annually, 1950–51 to 1961–62 in two parts—Part I, Rural Industries; Part II, Non-rural Primary Industries and Value of Production. Commencing 1962–63, issued as two separate Bulletins, *see Rural Industries* and *Non-rural Primary Industries and Value of Production*.

Primary Industries, Australian. Report prepared for the Empire Producers Conference, Sydney, March 1938.

Production. Bulletin, annually, 1906 to 1949–50. From 1936–37 to 1949–50 issued in two parts—Part I, Secondary Industries; Part II, Primary Industries (including Total Recorded Production); thereafter separate Bulletins (*see Primary Industries* and *Secondary Industries*).

Professional Papers. Various. A full list appears in Official Year Book No. 13, page 3.

**Publications of the Commonwealth Bureau of Census and Statistics*. Annually since 1950 (1964 to 1970 printed).

Quarterly Summary of Australian Statistics (replaced *Monthly Summary of Australian Statistics*). December 1917 onward.

**Retail Establishments, Census of* (1947–48), *Results*. Bulletins, Nos 1 to 7.

**Retail Establishments, Census of* (1948–49), *Results*. Bulletins, Nos 1 to 7.

**Retail Establishments, Census of* (1952–53), *Results*. Bulletins, Nos 1 to 14.

Retail Establishments, Census of (1956–57), *Results*. Bulletins, Nos 1 to 8 (mimeographed*) and 9 to 15 (printed).

Retail Establishments and Other Services, Census of (1961–62), *Results*. Bulletins Nos 1 to 7 (printed) and 8 and 9 (mimeographed*).

**Rural Holdings, Classification by Size and Type of Activity*, 1959–60. Bulletins, Nos 1 to 7.

Rural Holdings, Classification by Size and Type of Activity, 1965–66. Bulletins, Nos 1 to 7.

Rural Holdings, Size Classification of, 1955–56. Bulletins, Nos 1 to 7.

Rural Industries. Bulletin, annually, 1962–63 to 1967–68.

**Rural Land Use and Crop Production* (formerly *Summary of Crop Statistics*). Statistical Bulletin, annually, 1943–44 to 1968–69.

**Seasonally Adjusted Indicators*. Bulletin, annually, 1967 to 1970.

Secondary Industries. Bulletin, annually, 1950–51 to 1962–63 (commencing 1960–61 issued in two parts—Part I, Factory and Building Operations; Part II, Materials Used and Articles Produced in Factories). Commencing 1963–64 issued as separate bulletins, *see Manufacturing Industry, Manufacturing Commodities*, and *Building and Construction*.

Social Insurance. Report to the Hon. the Minister for Trade and Customs, 1910.

Social Statistics. Bulletin, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service. Report to the Hon. the Minister for Home Affairs, 1910.

For footnotes *see* next page.

Taxation Assessments, Commonwealth. Annually, 1961–62 to 1968–69.

Trade, Overseas. Bulletin, annually, 1906 to 1968–69.

**Trade, Overseas.* Preliminary Bulletin, annually, 1952–53 to 1969–70, in two parts—Part 1, Exports; Part 2, Imports. (*See also Exports, Australian; Imports, Australian;* and *Imports Cleared for Home Consumption.*)

Transport and Communication. Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually and 1932 to 1967–68 annually.

§*Value of Production.* Bulletin, annually, 1964–65 and 1967–68.

Wealth. The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

**Wheat Industry* (formerly *Summary of the Wheat Situation*). Statistical Bulletin, periodically; first issue, July 1936.

**Wool Production and Utilisation.* Bulletin, annually, 1952–53 to 1968–69.

Current or recent statistical publications

The publications listed on the following pages comprise all current or recent publications of the Central Office of the Commonwealth Bureau of Census and Statistics. For further information, including particulars of publications issued by the State offices of the Bureau, *see Publications of the Commonwealth Bureau of Census and Statistics* (*Reference* 1.8).

The publications listed are grouped into (i) *General publications*, (ii) *other publications*, and (iii) *population census publications*.

General publications contain statistics on a wide variety of subjects, including all major topics.

Other publications comprise reports, bulletins, statements, surveys, etc., which deal mainly with particular fields or subjects, and are listed alphabetically according to topic. They are of three kinds:

(i) publications (mainly annual) containing detailed tables of the main statistics collected which constitute the Bureau's permanent detailed printed records;

(ii) supplementary publications in mimeographed form (triennial, annual, half-yearly, quarterly, and monthly) which advance the statistics contained in (i), provide further detail, or issue new statistics;

(iii) preliminary reports of special surveys or censuses, such as the Population, Retail Trade and Motor Vehicle Censuses in mimeographed form.

Population census publications have been issued in respect of each Commonwealth census taken from 1911 to 1966, namely 1911, 1921, 1933, 1947, 1954, 1961 and 1966. Only the mimeographed publications issued for the 1966 census and a summarised list of the 1966 census volumes are shown in the following pages, but details of publications for earlier censuses are shown on page 1027. The issue of preliminary figures from the 1966 census in mimeographed form is now complete, and the volumes which will contain the final figures are currently being prepared and issued.

Publications of the *Census of retail establishments and other services* and the *Census of motor vehicles* are listed respectively under the headings of **Retail Trade** and **Transport and Communication.**

Frequency of issue is indicated as follows:

tri	— triennially	*m*	— monthly
a	— annually	*irr*	— irregularly
hy	— half-yearly	*occ*	— occasionally
q	— quarterly		

The *most recent issue* of each annual publication is shown in parentheses.

Prices. Those publications for which a charge is made are listed at the end of this Year Book. The prices are shown after the number and year of issue—in order, price excluding postage, and price including postage in Australia.

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* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print *see* back of this volume.

† *See* pages 1034–5 for 1967–68 series.

‡ Previously included in *Secondary Industries*, Part I—*Factory and Building Operations.*

§ Previously included in *Non-rural Primary Industries and Value of Production.*

‖ Copies available from the Bureau of Mineral Resources, Canberra and the Department of National Development, Melbourne and Sydney.

GENERAL PUBLICATIONS

Reference No.	
1.1	Official Year Book of the Commonwealth of Australia *a* (No. 56, 1970)
1.2	Pocket Compendium of Australian Statistics *a* (No. 55, 1970)
1.3	Quarterly Summary of Australian Statistics *q*
1.4	Monthly Review of Business Statistics *m*
1.5	Digest of Current Economic Statistics *m**
1.10	Seasonally Adjusted Indicators *a* (1970)*
1.6	Northern Territory Statistical Summary *a* (1970)
1.7	Australian Capital Territory Statistical Summary *a* (1970)
1.8	Publications of the Commonwealth Bureau of Census and Statistics *a* (1970)*
1.9	Publications issued by the Commonwealth Bureau of Census and Statistics *m**

OTHER PUBLICATIONS

	Balance of Payments (*see* **Overseas Trade and Balance of Payments, 8.1, 8.2**)
	Births (*see* **Demography, 4.4, 4.9, 4.11**)
	Building—
3.1	Building and Construction *a* (No. 4, 1967–68)
3.2	Building Approvals *m**
	Building Societies (*see* **Finance, 5.5, 5.34**)
3.3	Building Statistics, Australian Capital Territory *q**
3.4	Building Statistics, Northern Territory *q**
3.5	Building Statistics—Number of New Houses and Flats (Preliminary) *q**
3.6	Building Statistics, Quarterly *q**
	Deaths (*see* **Demography, 4.7** *to* **4.9, 4.11, 4.19**)
	Demography—
4.1	Arrivals and Departures, Overseas *q**
4.3	Arrivals and Departures, Overseas *m**
4.4	Births *a* (1969)*
4.5	Canberra City District, Population Count *occ* (1 July 1969)*
4.7	Death, Causes of *a* (No. 5, 1967)
4.20	Death, Causes of, Certification *irr* *§
4.8	Deaths *a* (1969)*
4.19	Deaths (Preliminary) *a* (1969)*
4.9	Demography *a* (No. 84, 1966)
2.98	Life Tables, Australian, 1960–62 (1961 Population Census)
4.10	Marriages *a* (1969)*
4.17	Population: Canberra City District *q**
4.21	Population Count: Darwin, Alice Springs and Tennant Creek, 30 June 1970
4.15	Population, Estimated Age Distribution, States and Territories *irr* (30 June 1969)*
4.16	Population Estimates (Preliminary) *q**
4.18	Population Estimates: Capital Cities and Principal Cities and Towns *a* (30 June 1969)*
4.13	Projections of the Population, Interim *irr* (1968 to 2001)*
4.14	Twelve Million Australians*†
4.11	Vital and Population Statistics, Summary of *q**
	Divorces (*see* **Social Statistics, 13.1, 13.2**)
	Employment (*see* **Labour, Wages and Employment**)
	Factories (*see* **Secondary Industries**)
	Finance—
5.1	Banking and Currency *a* (No. 7, 1968–69)
5.2	Banking Statistics *m**
5.3	Banking Statistics, Major Trading Banks (Preliminary) *m**
5.4	Banking Statistics (Gazette Extract) *a* (1969)* and *m**
	Banks, Savings (*see* Savings Bank Statistics)
5.34	Building Societies, Permanent *m**

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* Distributed by the Commonwealth Statistician free of charge.
† Special issue.
§ A booklet for the guidance of medical practitioners in completing medical certificates of cause of death.

Reference No.	
5.5	Building Societies, Registered *a* (No. 6, 1968–69)*
5.7	Capital Expenditure by Private Businesses in Australia (Preliminary) *q**
5.8	Capital Expenditure by Private Businesses in Australia *q**‡
5.9	Capital Raisings by Companies in Australia, New *q**
5.10	Capital Raisings by Companies in Australia, New (Preliminary) *q**
5.11	Finance and Government Securities, State, Territory and Local Government Authorities' *a* (No. 5, 1967–68)
5.12	Finance, Commonwealth *a* (No. 7, 1969–70)
5.13	Finance Companies *a* (1969–70)*
5.14	Finance Companies, Australia *m**
5.33	Finance, Public Authority *a* (1967–68)*
5.15	Insurance and Other Private Finance (other than Banking and Currency) *a* (No. 5, 1967–68)
5.16	Insurance, Fire, Marine and General *a* (No. 16, 1968–69)*
5.32	Insurance Statistics, Life *a* (1969)*
5.17	Insurance Statistics, Life *m**
5.18	Instalment Credit for Retail Sales *q**
5.19	Instalment Credit for Retail Sales (Preliminary and Provisional) *m**
5.20	Investment, Overseas *a* (1968–69)*
5.21	Investment, Overseas (Preliminary) *a* (1968–69)*
	National Accounts, Australian (*see* **National Accounts**)
5.23	Pension and Superannuation Schemes, Government *a* (No. 6, 1968–69)*
5.25	Pension Funds, Survey of Selected Private *a* (1968–69)*
5.26	Savings Bank Statistics *m**
5.27	Savings Bank Statistics (Gazette Extract) *a* (1969)* and *m**
5.28	Savings Bank Statistics (Preliminary) *m**
5.35	Savings Banks, Housing Finance Transactions within Australia (Preliminary Statement) *m**
5.29	Taxation Assessments, Commonwealth *a* (No. 8, 1968–69)
5.30	Taxation Collections, Commonwealth, State and Territory *a* (1968–69)*
5.31	Unit Trusts, Land Trusts and Mutual Funds *q**
	Health
16.1	Hospitals and Nursing Homes *a* (1968)*
	Income and Expenditure, National (*see* **National Accounts**)
	Labour, Wages and Employment—
6.1	Earnings and Hours, Survey of Weekly *a* (October 1969)*
6.18	Earnings, Average Weekly *q**
6.4	Employment and Unemployment *m**
6.5	Industrial Awards, Determinations and Collective Agreements, Survey of the Incidence of *irr* (May 1968)*
6.25	Industrial Awards, Determinations and Collective Agreements, Survey of the Incidence of *irr* (May 1968)—Bulletin 2: Numbers affected by Industrial Awards, etc., by Main Industrial Authorities and Specified Awards, etc.*
6.6	Industrial Disputes *q**
6.20	Labour Force, The *q**
6.22	Labour Force, The *a* (1964 to 1968)*
6.7	Labour Report *a* (No. 53, 1967)
6.8	Labour Turnover *hy**
6.9	Leavers from Schools, Universities or Other Educational Institutions, Survey of *a* (February 1967)*
6.10	Multiple Jobholding, Australia, Survey of *irr* (August 1967)*
6.15	Pay, Minimum Rates of, and Prescribed Hours of Work—Adult Males and Females *hy**
6.19	Superannuation, Survey of, Victoria *occ* (May 1968)*
6.24	Trade Union Statistics *a* (December 1969)*
6.12	Wage and Salary Earners, Employed (Preliminary) *m**
6.13	Wage and Salary Earners in Employment *irr* (June 1954 to June 1961)*

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† Introductory issue.
‡ June and December quarter issues contain, in addition, details of maintenance expenditure, and details of anticipated new capital expenditure for the ensuing six months.

Reference No.	
6.14	Wage and Salary Earners in Employment *irr* (June 1961 to June 1965)*
6.23	Wage and Salary Earners in Employment *irr* (June 1966 to June 1969)*
6.16	Wage Rates and Earnings *m**
6.21	Wage Rates Indexes *irr* (June 1965 to June 1968)*
6.17	Wage Rates, Minimum *irr* (March 1939 to June 1965)*
6.26	Work Experience in 1968 *irr**
	Manufacturing (*see* **Secondary Industries)**
	Marriages (*see* **Demography, 4.9-11)**
	Migration, Overseas (*see* **Demography, 4.1, 4.3, 4.9)**
	Mining and Quarrying (*see* **Primary Industries, 10.4, 10.13, 10.17, to 10.23 10.40 to 10.43, 10.45)**
	Motor Vehicles (*see* **Transport and Communication)**
	National Accounts—
7.8	Gross National Product and Expenditure at Current and Constant Prices *irr* (1959–60 to 1969–70)*
7.7	Gross Product by Industry at Current and Constant Prices, Estimates of *a* (1959–60 to 1965–66) (Supplement to Reference No. 7.1, 1953–54 to 1966–67)*
7.1	National Accounts, Australian—National Income and Expenditure *a* (1968–69)
7.2	National Accounts, Australian (Preliminary Statement No. 1)—Gross National Product at Current and Constant Prices *a* (1968–69)*
7.3	National Accounts, Australian (Preliminary Statement No. 2)—Personal Income by States *a* (1968–69)*
7.4	National Accounts, Australian (Preliminary Statement No. 3)—Gross National Product at Factor Cost, by Industry *a* (1968–69)*
7.5	National Income and Expenditure, Quarterly Estimates *q**
7.6	National Income and Expenditure, Quarterly Estimates (Preliminary) *q**
	Non-rural Primary Industries (*see* **Primary Industries)**
	Overseas Trade and Balance of Payments—
8.1	Balance of Payments *hy**
8.2	Balance of Payments, Quarterly Summary *q**
8.3	Export Commodity Classification, Australian *a* (1969–70)*
8.21	Exports and Imports of Merchandise at Constant Prices‡*
8.22	Exports and Imports of Merchandise at Constant Prices *q**
8.4	Exports, Australian *a* (No. 12, 1969–70)
8.5	Exports of Principal Products of Australian Origin *m**
8.6	Import Commodity Classification, Australian *a* (1969–70)*
8.19	Imports, Australian *a* (No. 4, 1969–70)
8.7	Imports Cleared for Home Consumption *a* (No. 11, 1969–70)†
	Part 1, Tariff Chapters 1–24
	Part 2, Tariff Chapters 25–49
	Part 3, Tariff Chapters 50–67
	Part 4, Tariff Chapters 68–83
	Part 5, Tariff Chapters 84–9
	Part 6, Tariff Chapters 90–9 and Second Schedule
8.8	Imports of Assembled New Passenger Motor Cars (other than Buses or Special Vehicles) *m**
	Overseas Investment (*see* **Finance, 5.20, 5.21, Primary Industries, 10.42 and Secondary Industries, 12.19, 12.20)**
8.9	Overseas Trade, Part 1—Exports *m**
8.10	Overseas Trade, Part 2—Imports *m**
8.11	Overseas Trade *a* (No. 66, 1968–69)
8.12	Overseas Trade, Australia, Exports and Imports (Preliminary) *m**
8.18	Overseas Trade, Exports by Commodity Divisions, Australia *m**
8.13	Overseas Trade, Imports by Commodity Divisions, Australia *m**
8.14	Overseas Trade, Major Groups of Countries *q**
8.15	Overseas Trade (Preliminary)—Part 1, Exports *a* (1969–70)*

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† Each part includes descriptions of the Tariff Items and Statistical Key Codes.

‡ Introductory issue.

Reference No.	
8.16	Overseas Trade (Preliminary)—Part 2, Imports *a* (1969–70)*
8.23	Overseas Trade Statistics, Highlights of *q**
8.17	Trade of Australia with Eastern Countries *a* (1969–70)*
	Population (*see also* Population Census *and* Demography)
15.1	Ex-service Personnel, Australian, Survey of *irr* (November 1966)*
2.98	Life Tables, Australian, 1960–62 (1961 Census)
	Prices and Price Indexes (*see also* 6.7, Labour Report)
9.1	Consumer Price Index *q**
9.7	Consumer Price Index, Particulars for Sub-groups and Special Groupings *q**
9.2	Export Price Index *m**
9.3	Retail Prices of Selected Food and Grocery Items, Average *q**
9.4	Wholesale Price (Basic Materials and Foodstuffs) Index *m**
9.5	Wholesale Prices—Price Index of Electrical Installation Materials *q**
9.6	Wholesale Price Indexes, Price Index of Materials Used in Building other than House Building *m**
	Primary Industries—
10.1	Aerial Agriculture Operations *q**
	Agricultural Machinery (*see* **Secondary Industries, 12.1**)
10.2	Agricultural Statistics (Preliminary) *a* (1968–69)*
10.3	Bee Farming *a* (1968–69)*
	Butter Factories (*see* **Secondary Industries, 12.12.21, 12.16.55**)
10.44	Chicken Hatchings and Poultry Slaughterings *m**
	Consumption of Foodstuffs, etc. (*see* Food, Tea)
	Crop Production (*see* Rural Land Use)
10.4	Construction Material Quarrying, A.C.T. *a* (1969)*
10.5	Dairying Industry *hy**
10.6	Dairying Industry *m**
	Earthmoving Equipment (*see* **Secondary Industries, 12.2**)
10.7	Farm Machinery on Rural Holdings *a* (March 1969)*
10.8	Fisheries *a* (No. 15, 1968–69)*
10.9	Fisheries (Preliminary) *a* (1968–69)*
10.10	Food Production and the Apparent Consumption of Foodstuffs and Nutrients *a* (No. 24, 1968–69)*
10.47	Forests and Forest Products *a* (No. 1, 1967–68)*
10.11	Fruit Growing Industry *a* (No. 25, 1968–69)*
10.12	Fruit Statistics (Preliminary) *a* (1968–69)*
10.46	Grain and Seed Harvesters on Rural Holdings *tri* (31 March 1967)*
10.14	Livestock Numbers *a* (No. 27, March 1969)*
10.15	Livestock Statistics (Preliminary) *a* (March 1970)*
10.16	Meat Industry *m**
10.41	Mineral Exploration *a* (No. 4, 1968)*
10.17	Mineral Industry, The Australian (Quarterly Review and Statistics) *q*
10.18	Minerals and Mineral Products *a* (No. 5, 1968)*
10.40	Minerals and Mineral Products (Preliminary) *a* (1968)*
10.19	Minerals and Mineral Products *m**
10.20	Mining and Quarrying *a* (No. 17, 1968)*
10.21	Mining and Quarrying (Preliminary) *a* (1968)*
10.43	Mining and Quarrying: Value of Output (Preliminary Estimates) *a* (1968)*
10.42	Mining Industry, Australian, Overseas Participation in *a* (1968)*
10.23	Non-rural Primary Industries *a* (No. 2, 1965–66 and 1966–67)
10.24	Primary Production, Value of (Preliminary Estimates) *a* (1969–70)*
10.25	Primary Production, Value of (Preliminary Statement) *a* (1969–70)*
10.26	Production, Value of *a* (No. 4, 1967–68)
10.27	Production, Value of, and Indexes of Price and Quantum of Farm Production *a* (No. 19, 1968–69)*
10.28	Rural Holdings, Classification of, by Size and Type of Activity, 1965–66, Bulletins Nos 1–7 (Australia and States) *irr*

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Reference No.

10.29 Rural Industries *a* (No. 6, 1967–68)
10.30 Rural Land Use and Crop Production *a* (No. 26, 1968–69)*
10.31 Rural Statistics of the Australian Capital Territory *a* (1969–70)*
10.33 Tea and Coffee, Apparent Consumption of *a* (No. 9, 1969–70)*
Tractors, New (*see* **Secondary Industries, 12.18**)
10.34 Tractors on Rural Holdings *tri* (March 1969)*
10.35 Wheat Industry *a* (No. 116, 1968–69, and 1969–70 Preliminary)*
10.36 Wheat Industry *a* (No. 117, 1969–70 Preliminary)*—supplement to No. 116)
10.37 Wine and Brandy, Wholesale Sales and Stocks of *a* (1969–70)*
Wool, Exports of (*see* **Overseas Trade and Balance of Payments, 8.5**)
10.38 Wool Production and Utilisation *a* (No. 17, 1968–69)*
10.39 Wool Production (Preliminary) *a* (No. 20, 1969–70)*
Wool Production, Woollen Mills (*see* **Secondary Industries**)

Production (*see* **Primary Industries** *and* **Secondary Industries**)
Retail Trade—

11.1 Retail Establishments and other Services, Census of *irr* (year ended 30 June 1962)—
  Preliminary Statements Nos 1–14 (Australia and States)*
  Bulletins Nos 1–7 (Australia and States)
  Bulletins Nos 8, 9 (Australian Capital Territory and Northern Territory)*
  Supplementary Collections Nos 1–3—Licensed Clubs; Laundries and Dry Cleaners; Motion Picture Theatres*
11.2 Retail Establishments, Survey of, Australian Capital Territory *a* (1967–68)*
11.3 Retail Establishments, Survey of, Northern Territory *a* (1967–68)*
11.4 Retail Sales of Goods *q**
11.5 Retail Sales of Goods (Preliminary) *q**
11.6 Retail Sales of Goods (Provisional) *m**

Rural Industries (*see* **Primary Industries**)
Schools (*see* **Social Statistics, 13.4, 13.5**)
Secondary Industries—

12.1 Agricultural Machinery Statistics, New *q**
12.2 Construction Machinery and Attachments, Sales of New *q**
12.4 Factories, Summary of Principal Statistics of *a* (No. 20, 1967–68)*
12.5 Factory Production, Indexes of *a* (1949–50 to 1967–68)*
12.7 Factory Products, Principal *a* (No. 17, 1963–64 to 1967–68)*
12.8 Factory Statistics, Australian Capital Territory *a* (1967–68)*
12.9 Factory Statistics, Northern Territory *a* (1967–68)*
12.10 Factory Statistics, Preliminary *a* (1967–68)*
12.11 Manufacturing Commodities *a* (No. 2, 1965–66)
12.12 Manufacturing Industries *a* (1967–68)*—

1. Cement and Cement Goods
2. Bricks, Tiles, Pottery and Earthenware
3. Chemicals, Drugs and Medicines
4. White Lead, Paints and Varnish
5. Chemical Fertilisers
6. Soap and Candles
7. Basic Metal Industries
8. Metal Fabricating Industries
9. Motor Vehicles and Cycles
10. Cotton Mills
11. Woollen Mills
12. Rope and Cordage
13. Tanneries
14. Boots and Shoes
15. Clothing (including Hosiery and Knitted Goods)
16. Flour and other Grain Mills
17. Biscuits
18. Confectionery

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Reference No.

19. Jam, Fruit, Vegetables, Pickles, Sauces, Condiments, etc.
20. Bacon Curing
21. Butter, Cheese and Condensed, Concentrated, etc., Milk
22. Aerated Waters and Cordials
23. Meat and Fish Preserving
24. Breweries
25. Wineries and Distilleries
26. Tobacco, Cigars and Cigarettes
27. Sawmilling
28. Pulp and Paper Making
29. Rubber Works
30. Brooms and Brushes
31. Electric Light and Power Works
32. Gas Works
33. Plastic Moulding and Products
34. Leather Goods (including Saddlery and Belting)
35. Printing and Stationery

12.13 Manufacturing Industry *a* (No. 4, 1967–68)
Manufacturing Industry, Australian, Overseas Participation in—
12.19 Part 1—Overseas Ownership *irr* (1962–63 and 1966–67)*
12.20 Part 2—Overseas Control *irr* (1962–63 to 1966–67)*
12.6 Packaging and Associated Items *a* (1967–68)*
12.21 Production of Women's, Maids' and Girls' Outerwear—States *a* (1966–67 and 1967–68)*
12.14 Production Statistics *m**
12.15 Production Statistics (Preliminary) *m**
12.16 Production Summaries *m**—

1. Automotive Spark Plugs and Shock Absorbers
2. Chemicals, etc.
3. Plastics and Synthetic Resins and Plasticisers
4. Paints and Other Surface Coatings
5. Electricity and Gas
6. Soap, Detergents, Glycerine and Fatty Acids
7. Internal Combustion Engines
8. Lawnmowers
9. Electrical Appliances
10. Motor Bodies, Trailed Vehicles, Lift-on Freight Containers, etc.
11. Pedal Cycles
12. Meters
13. Building Fittings
14. Cotton Goods
15. Fellmongering, Woolscouring and Carbonising
16. Wool Top Making and Yarn Produced
17. Wool Woven Fabric
18. Hosiery
19. Women's, Maids' and Girls' Clothing, and Infants' and Babywear
20. Cellulosic and Synthetic Fibre Tops, Yarns and Woven Fabrics
21. Paper, Wood Pulp and Adhesive Tapes
22. Floor Coverings and Felts
23. Electric Motors
24. Men's, Youths' and Boys' Clothing
25. Foundation Garments
27. Gloves and Slide Fasteners
28. Footwear
29. Biscuits, Cocoa, Confectionery, Ice Cream
30. Storage Batteries—Wet Cell
32. Perambulators, Pushers and Strollers
33. Motor Vehicles
34. Television, Radios, other Sound Equipment; Transistors
35. Bed Bases and Mattresses
36. Processed Milk Products

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Reference No.

38. Fish Preserving
39. Jam, Preserved Fruit and Vegetables
40. Cereal Products
41. Vegetable Oils, Margarine and other Edible Processed Fats
42. Malt and Beer
43. Stock and Poultry Foods (including Bran and Pollard)
45. Phonograph Records
47. Aerated and Carbonated Waters, Cordials and Syrups
48. Sports Goods
49. Building Materials
50. Electrodes for Manual Welding
51. Hides and Skins used in Tanneries
52. Electrical Power Frequencies Transformers, Chokes and Ballasts
53. Plastics Film, Sheeting and Coated Materials
55. Butter and Cheese
56. Canned Meat
58. Steel Wire and Wire Products
59. Non-ferrous Rolled, Extruded and Drawn Products

12.17 Textile Industries, Machines Installed *a* (30 June 1967 and 1968)*
12.18 Tractors, New, Receipts, Sales and Stocks *q**

Social Statistics—

Child Care (*see* **Miscellaneous, 17.2**)
13.10 Colleges of Advanced Education and Teachers Colleges *a* (1968)*
13.1 Divorce *a* (1969)*
13.2 Divorce *q**
13.11 Non-school Study Courses, Survey of *irr* (August 1968)*
13.4 School Enrolments *a* (1969)*
13.5 Schools *a* (1969)*
13.6 University Statistics (Preliminary Statement) *a* (1970)*
13.7 University Statistics, Part 1. Students and Degrees Conferred *a* (1969)*
13.8 University Statistics, Part 2. Staff and Libraries *a* (1969)*
13.9 University Statistics, Part 3. Finance *a* (1969)*

Transport and Communication—

14.1 Motor Vehicle Registrations *a* (1969)*
14.2 Motor Vehicle Registrations *m**
14.3 Motor Vehicle Usage, Survey of (Preliminary) *irr* (1963)*
14.4 Motor Vehicle Usage, Survey of (Preliminary) States and Territories *irr* (1963)*
14.5 Motor Vehicles, Census of *irr* (31 December 1962)—
  Preliminary Statements Nos 1–9 (Australia, States and Territories)*
  Bulletins Nos 1–9 (Australia, States and Territories)
14.6 New Motor Vehicles, Registrations of (Preliminary) *m**
14.7 New Motor Vehicles, Registrations of, Make of Vehicle (Preliminary) *a* (1969)*
14.8 New Motor Vehicles, Registrations of, Make of Vehicle (Preliminary) *m**
14.13 Road Accident Fatalities *m**
14.9 Road Traffic Accidents Involving Casualties *q**
14.14 Road Traffic Accidents involving Casualties (Preliminary) *q**
14.12 Road Traffic Accidents Involving Casualties, Northern Territory *q**
14.10 Shipping Cargo, Overseas *m**
14.11 Transport and Communication *a* (No. 59, 1967–68)

University Statistics (*see* **Social Statistics, 13.6** *to* **13.9**)
Value of Production (*see* **Primary Industries, 10.24** *to* **10.27, 10.43**)
Vital Statistics (*see* **Demography, 4.4, 4.7** *to* **4.11, 4.15**)
Wages (*see* **Labour, Wages and Employment**)
Miscellaneous

17.1 Book Publishing, Australian *a* (1969)*
17.2 Child Care *irr* (May 1969)*
17.3 Illness, Chronic, Injuries and Impairments *irr* (May 1968)*

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1966 CENSUS OF POPULATION AND HOUSING PUBLICATIONS†

Mimeographed statements

Mimeographed statements issued in respect of the 1966 *Census are of two kinds:*

(*a*) *field count statements, containing preliminary figures compiled by field personnel during the taking of the census; and*

(*b*) *bulletins, which contain, in general, preliminary summarised particulars of the detailed information that will eventually be published in the appropriate Parts of final printed Volumes of the Census. They should therefore* not *be regarded as providing the final detailed analysis available of the topic in question.*

FIELD COUNT STATEMENTS*

Reference No.		
2.1	FC 1	Population: Australian Capital Territory
2.2	„ 2	Population: Nauru, Norfolk Island, Christmas Island, and Cocos (Keeling) Islands
2.3	„ 3	Population: States and Territories of Australia
2.4	„ 4	Population: Principal Urban Centres of Australia
2.5	„ 5	Population: Administrative Divisions, Australian Capital Territory
2.6	„ 6	Population: Local Government Areas and Urban Centres, New South Wales
2.7	„ 7	Population: Local Government Areas and Urban Centres, Victoria
2.8	„ 8	Population: Local Government Areas and Urban Centres, Queensland
2.9	„ 9	Population: Local Government Areas and Urban Centres, South Australia
2.10	„ 10	Population: Local Government Areas and Urban Centres, Western Australia
2.11	„ 11	Population: Local Government Areas and Urban Centres, Tasmania
2.12	„ 12	Population: Police Districts, Northern Territory

BULLETINS*

The following bulletins have been issued in this series. The first digit in the bulletin numbers shown indicates the State, etc., to which the bulletin relates, as follows: 1*—New South Wales;* 2*—Victoria;* 3*—Queensland;* 4*—South Australia;* 5*—Western Australia;* 6*—Tasmania;* 7*—Northern Territory;* 8*—Australian Capital Territory;* 9*—Australia;* 10–13*—External Territories—e.g. No.* 4.3 (*Reference No.* 2.15) *represents the bulletin* Population: By Age and Marital Status, South Australia.

Reference No.

For each State and Territory and Australia

Reference No.		
2.13	Nos. 1–9.1	Summary of Population
2.14	„ 1–9.2	Summary of Dwellings
2.15	„ 1–9.3	Population: By Age and Marital Status
2.16	„ 1–9.4	Population: By Industry and Age
2.17	„ 1–9.5	Overseas Born Population: By Birthplace and Nationality
2.18	„ 1–9.6	Population: By Industry and Occupational Status
2.19	„ 1–9.7	Population: By Marital Status, Age and Occupational Status
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Reference No.	
2.22	The Aboriginal Population (Revised Statement): States and Territories of Australia
2.23	The Aboriginal Population of Australia: Summary of Characteristics

For the External Territories

Reference No.		
2.24	No. 10.1	Summary of Population: Census of the Territory of Norfolk Island
2.25	„ 11.1	Summary of Population: Census of the Territory of Christmas Island
2.26	„ 12.1	Summary of Population: Census of the Territory of Cocos (Keeling) Islands
2.27	„ 13.1	Summary of Population: Census of the Territory of Nauru

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* Distributed by the Commonwealth Statistician free of charge.

† *See* page 1027 for previous Censuses.

1966 POPULATION CENSUS PUBLICATIONS—*continued*

Printed Volumes*

Volume 1.

Parts 1–11 *Population: Single Characteristics.* (Part 1, Age; Part 2, Marital status; Part 3, Birthplace; Part 4, Nationality; Part 5, Period of residence in Australia; Part 6, Educational attainment; Part 7, Religion; Part 8, Occupational status; Part 9, Industry; Part 10, Occupation; Part 11, Race.)

Volume 2.

Parts 1–5 *Population: Related Characteristics.* (Part 1, Growth and distribution of the population; Part 2, Demographic data; Part 3, The overseas-born population; Part 4, The work force; Part 5, Families and households.)

Volume 3.

Housing.

Volume 4.

Parts 1–7 *Population and dwellings in local government areas.* (Part 1, New South Wales; Part 2, Victoria; Part 3, Queensland; Part 4, South Australia; Part 5, Western Australia, Part 6, Tasmania; Part 7, Northern Territory and Australian Capital Territory.)

Volume 5.

Parts 1–8 *Population and dwellings in localities.* (Part 1, New South Wales; Part 2, Victoria; Part 3, Queensland; Part 4, South Australia; Part 5, Western Australia; Part 6, Tasmania; Part 7, Northern Territory and Australian Capital Territory, Part 8, Australia.)

Volume 6.

Parts 1–6 *Statistician's Report.* (Part 1, Introduction; Part 2, Preparation for the Census; Part 3, The enumeration; Part 4, Processing the data; Part 5, Dissemination of results; Part 6, Evaluation.)

Information on current or recent Bureau publications

Further information on current or recent publications of the Commonwealth Bureau of Census and Statistics is contained in *Publications of the Commonwealth Bureau of Census and Statistics*, 1970, available free on request from the Commonwealth Statistician, Canberra. This contains a list of all Bureau publications, a subject index to show the Central Office publications in which information on the various subjects dealt with by the Bureau is to be found, and short descriptions of major Central Office publications. The information on issues in this publication is supplemented in monthly statements.

Publications issued by the Deputy Commonwealth Statisticians

A list of the current publications issued by the Deputy Commonwealth Statistician of each State appears in *Publications of the Commonwealth Bureau of Census and Statistics*, 1970, and this information is supplemented also in the monthly statements mentioned above.

Commonwealth and State Parliamentary and Departmental Reports and Papers

No comprehensive list of current publications of this nature is available, but the National Library of Australia issues an annual publication *Australian Government Publications*, a list of official publications of the Commonwealth, States and Territories, compiled from records of material received by the Library during the year.

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* In the course of preparation.

The Australian Government Publishing Service, Canberra, issues a monthly publication *Australian Government Publications* and at irregular intervals Consolidated Lists. These publications list Commonwealth publications currently becoming available or in stock, showing the titles and prices of Parliamentary Papers, Parliamentary Debates (Hansard), records of Parliamentary proceedings, Acts, Statutory Rules, Ordinances, and departmental bulletins and reports issued annually or irregularly.

Australian Government publications may be obtained through the mail from the Assistant Director, Sales and Distribution, Australian Government Publishing Service, P.O. Box 84, Canberra, A.C.T. 2600, or over the counter from the A.G.P.S. Book Centre, 113-115 London Circuit, Canberra City, A.C.T; the A.G.P.S. Book Counter, Wentworth Avenue, Kingston, A.C.T.; the A.G.P.S Book Centre, 347 Swanston Street, Melbourne Victoria; the A.G.P.S. Book Counter, the Foyer, Commonwealth Centre, Chifley Square, N.S.W.; the Commonwealth Sub-Treasury in each State Capital City except Melbourne; or booksellers.

The National Library of Australia issues annually a publication *Australian Books*, a reprint of the 1966 issue of which is included on pages 1231–77 of Year Book No 53. *See* page 674 of the chapter Education, Cultural Activities and Research for further information concerning the National Library's publicising of Australian publications.

CHAPTER 31

AUSTRALIAN INTEGRATED ECONOMIC CENSUSES, 1968-69

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The meaning of integration

For the year ended June 1969 censuses of mining, manufacturing, electricity and gas production and distribution, retail trade and selected services, and wholesale trade were conducted for the first time on an integrated basis.

The manufacturing and mining censuses for 1968–69 were part of the series of regular annual censuses conducted for these industries, but the mining census was being held for the year ended June instead of the calendar year as in the past. Electricity and gas production had previously been included in the manufacturing census; for the year 1968–69 they were treated as a separate census and the scope of the returns was extended to cover distribution as well as production. The retail census had been held every four or five years, the previous retail census being for the year 1961–62.

Wholesale trade had not been the subject of a census before, although there had been an exploratory partial wholesale census for the year 1963–64. In future, censuses of retail and wholesale trade will be held about every five years, the other censuses annually as in the past.

The integration of these censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are provided with no overlapping or gaps in coverage, and in such a way that aggregates for certain important economic data such as value added, employment, salaries and wages, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

To make this integration possible, it was necessary to revise all the forms used in previous censuses to bring the items of data to a common basis of definition in all censuses. This revision was made after extensive investigations of business record-keeping practices conducted by the Bureau over a period of years. For most businesses in the scope of the censuses—businesses which operate at one location only—this was the principal change brought about by the integration of the censuses. For businesses operating at more than one location the other principal change was that the census returns for all industries covered were collected through the head offices of the enterprises, each of which was asked to report in a consistent way for each of its establishments covered by the censuses and for the enterprise as a whole.

Purposes of integration

The integration of the economic censuses was undertaken as a major reorganisation of a large part of the Bureau's work, designed to increase substantially the usefulness and comparability of the kinds of statistics already being collected and published, for purposes of general economic analysis and market research.

Aggregation of economic data

The economic censuses of manufacturing, mining and retail trade were introduced originally—many years ago—and subsequently developed, in order to provide statistics for particular industries, with special definitions of units and data adopted to suit the requirements of users interested in statistics of those industries. (The same is true of the annual agricultural and pastoral census—but this is not among the economic censuses integrated in 1968–69.) More recently there has been a growth of interest in statistics describing activity in the economy as a whole—reflected, for example, in the post-war development of employment and earnings statistics, surveys of capital expenditure, stocks and wages and the whole field of national accounts statistics.

For such purposes economic census statistics in the past have had serious limitations despite the fact that they covered a broad area of the whole economy. Because of the special-purpose nature of each of the censuses, there were no common definitions of data, and there was no common system of reporting units, and therefore aggregation of statistics from different censuses was not possible. As no standard industrial classification existed, industry boundaries were not defined in ways which would prevent overlapping or gaps occurring between the industrial sectors covered by the censuses. This was a further reason why aggregation across industry boundaries was not possible. For estimation of the national accounts, therefore, little use was made of the results of the economic censuses, except the agricultural census, and there was much reliance on statistics compiled from income-tax assessments. Employment and earnings statistics for the economy as a whole have been derived mainly from monthly returns of payroll tax-payers.

Benchmark data for surveys

For these reasons the economic censuses in the past have provided no basis for designing or adjusting the sample surveys which supply current economic statistics from quarter to quarter, particularly those of capital expenditure and stocks which are important components of the quarterly national income and expenditure estimates. To be accurate, such statistics should be backed periodically by comprehensive benchmark data of the kind normally available only from censuses. The previous censuses of manufacturing, mining and retail trade covered large and important sectors of the whole economy, and they included many of the same broad types of data as those needed for current economic indicators. However, because of the specialised nature of the units and data concepts on which the censuses were designed, and the lack of standard industry boundaries, it was not possible to use the results of these censuses as benchmark data for improving the accuracy of the surveys.

Similarly, the employment statistics derived from the censuses could not be used to improve the accuracy of the monthly employment and quarterly earnings series. The basic benchmark for these series is the population census, but the annual manufacturing and mining censuses, and the periodical retail trade census, were potential sources of data for checking the movements of these series.

The units employed in most of the surveys and for the private sector in the employment and earnings series are payroll-tax payers, broadly consisting of businesses (or the parts of interstate businesses operating in one State) whose payroll amounts to more than $20,800 a year. The unit employed in the censuses is the establishment. In the manufacturing census prior to 1968–69, this was a unit engaged in manufacturing activity and employing four or more persons or using power (other than manual) in any manufacturing process. Any part of a business (or of a particular location at which a business operated) which met this definition was treated as a manufacturing establishment, and the form required that 'manufacturing activity' should exclude selling and delivery. The value of output was to be reported exclusive of delivery costs, and employment was to exclude sales and delivery staff. The retail census covered the retail trading activities of establishments which normally sold goods to the general public from fixed premises. It omitted any wholesaling, manufacturing or other non-retailing activity carried on at the same location. Many types of repair activity, however, such as repairing of motor vehicles, shoes and watches, were included in the retail census, and were also included in the manufacturing census. The retail trade census also included any retailing activities carried on at locations primarily engaged in other activities such as wholesaling or manufacturing. The establishments from which mining census returns were collected were confined to units engaged in mining activity, including crushing and ore-dressing at or near the mine. All censuses (except the retail trade census, in respect of chain stores) excluded separately located head office staff, while including administrative staff located at the establishment. They also excluded any staff at separately located units providing ancillary services to the establishments, such as delivery fleet depots, research laboratories or storage warehouses.

Thus there were serious obstacles to the reconciliation of statistics from economic censuses on the one hand and the economic surveys and the employment and earnings series on the other, which would have been necessary if the censuses were to provide benchmark data and a sample framework for the surveys, and satisfactory interim data for checking the movements of the employment and earnings series.

National Accounts

Like employment statistics and the surveys that have been discussed, the national accounts have to be comprehensive for the whole economy. They run across all industries and, in the industry dissections they provide, all economic activities must find a place. The national accounts are partly based on actual statistics, and partly on estimates. This will probably always be the case, but progress in national accounting requires that the part based on actual statistics should progressively increase. A major step in this direction would have been achieved if consistent and integrated statistics were available, both for censuses and surveys, from businesses themselves. The main broad aggregates required for each industry are gross product (that is, contribution to G.N.P.), wages and salaries, capital expenditure and stocks. The economic censuses were potential sources of this information.

Although it has always been desirable to have consistent figures of this kind as a basis for national accounts estimates, two developments in recent years have made the need urgent. One is the development, in response to strong demand, of quarterly estimates of national income and expenditure. Dependent as they are on the available current figures of wages and salaries, capital expenditure and stocks, the publication of these estimates in Australia has increased the significance of the lack of correspondence between the current survey-based data and the potential benchmark information available in the economic censuses—and between these and the tax-based statistics from which many of the annual estimates of national income and expenditure are derived.

The second development which has enhanced the importance of integrated economic statistics is the strong move in advanced countries towards the development of new types of national accounts: input-output tables, flow-of-funds tables and national balance sheets, and the obvious advantages of being able to present these accounts (together with the national income accounts themselves and the balance of payments) in a single co-ordinated framework. These efforts have led to the appearance of the new proposals by the United Nations Statistical Office for an integrated system of national accounts* which have now been endorsed by official statisticians throughout the world. To implement proposals of this kind, the relevant national accounting concepts and frameworks must be co-ordinated, but in addition the basic data on which the estimates are based need to be fitted as closely as possible into the specified concepts and frameworks. The best hope for success in this objective is to integrate the conceptual framework in which the statistics are collected as closely as possible with the framework of the national accounts themselves. To give an example from the work being done in Australia at present: input-output tables are being prepared for the year 1962–63, on a conceptual framework consistent with the national income accounts. But many of the conceptual cells in the input-output table can only be filled for each industry by data obtained from the manufacturing and other economic censuses. These are the cells of the table showing what the industry buys from, and sells to, other industries and sells to end-users. In effect, these yield new estimates of the gross product of the industry which in present circumstances conflict with the estimates already published in the *Australian National Accounts*, based as these are mainly on tax statistics. To make them agree in future, a common set of concepts and a common set of statistical reporting units are needed for both the economic censuses and the national accounts.

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* *A System of National Accounts*, Studies in Methods, Series F, No. 2, Rev. 3 (New York, 1968).

The needs of national accounts statistics here do not conflict with those of the statistics for particular industries. On the contrary, the national accounts can provide the common conceptual basis needed for comparability of data between industries, without restricting the scope for the variation in detail which is necessary in order to provide each industry with its own statistics in the most suitable form. The interest of businesses themselves can be met by this common conceptual approach too, as there is no major conflict between national accounting concepts and the accounting concepts familiar to businesses.

Comparability of statistics for different levels of unit

The national accounts illustrate a fact which underlies all economic statistics: that different levels of unit are appropriate for different kinds of statistics. In the case of the national accounts, statistics are required for items such as capital expenditure and stocks in some industry detail, and for items such as wages and salaries in geographical detail as well. To be classifiable in this way, such statistics should be collected and tabulated for a particular stratum of business unit, usually called the establishment. Statistics for national accounting items such as profit and interest receipts and payments, on the other hand, can only be collected and tabulated for a legal-entity type of unit which may be broader than the establishment. Commodity statistics are needed for estimates of input-output transactions, personal consumption expenditure and aggregates at constant prices. For these statistics the unit being tabulated is narrower than the establishment; it is, so to speak, the commodity itself: for example, the tonnage of ice-cream produced, whether made in establishments classified to the ice-cream industry class or not—although the statistics must of course be collected from a business unit. On the other hand, for studies of the sources and uses of capital funds, including overseas investment, the statistics needed are best collected and tabulated for units broader than the legal entity. This type of statistics would relate to business units of ownership and financial control, including groups of legal entities under common ownership and control. Although these examples are drawn from national accounts, there are similar relationships between types of unit and types of statistics in other forms of economic statistics.

This means that comparisons of industry detail cannot be made between statistics corresponding to different levels of unit, even if they are based on a common industry classification, unless something has been done to integrate the units at the various levels. This is one of the most important objectives of the integration of the economic censuses. It requires collecting data in such a way that reconciliation is made between the different levels of detail in each return, or set of returns, collected from each enterprise: commodity sales with establishment sales, establishment sales with enterprise sales, and so on. It also requires the facility to recast statistics collected and published for one level of unit to make them comparable with those for a higher level unit. Salaries and wages, for example, would normally be published for establishments, and the salaries and wages for, say, the basic chemical industry group, would be those paid by all establishments classified to that industry group. If it were desired to compare the salaries and wages of this industry group with its operating surplus, for example, it would be necessary to use the statistics of the salaries and wages paid by all *enterprises* classified to the industry group. For a comparison with capital raisings or overseas investment it would probably be necessary to use the statistics of the salaries and wages paid by all *enterprise groups* classified to basic chemicals. The figure of salaries and wages would be different in each case, because the business unit classified to the industry group is progressively broader at each stage. Being classified on the basis of its main activity, it would tend to include progressively more salaries and wages paid to employees engaged in activities other than basic chemicals, because of the mixed nature of the activities of enterprises and enterprise groups. On the other hand, it would tend to exclude progressively more salaries and wages paid to employees of basic chemical establishment owned by enterprises predominantly operating in other industries.

Enterprise statistics

The establishment as used in economic censuses is defined mainly in terms of location, rather than in terms of ownership or management. With the growth of multi-establishment enterprises, especially those cutting across several industry boundaries, there has been increasing interest in statistics about enterprises as economic entities. These are the statistics relevant for comparisons with such things as the financial performance of companies, derived from company accounts or from taxation statistics, and in studies of the competitive position of firms. Size-distributions based on establishments can give only a partial picture of the structure of industries; they have to be supplemented by size-distributions of the enterprises engaged in the industry.

The enterprise statistics needed for these purposes must relate to all forms of business units—unincorporated enterprise as well as companies. For some purposes statistics based on operating legal entities as the unit are needed; other purposes require statistics based on groups of such legal entities operating under common ownership or control.

Provision for extension of economic censuses into other industries

The problems referred to earlier which have arisen from the specialised nature of the units and data concepts used in the existing economic censuses are likely to increase with the extension of economic censuses into other industries. A census of wholesale trade could not have been introduced without close attention being paid to its boundaries with manufacturing on the one hand and retail trade on the other. The treatment of the sales branches of manufacturing enterprises had to be determined, and the treatment of wholesaleing activity by retailers. Similar problems arise with the planned future introduction of a census of construction. This industry, like wholesale trade, has areas of overlapping with manufacturing which have required special attention in the new standard industrial classification, in order to avoid the possibility of gaps or overlapping.

Steps in integration

To meet the purposes of integration, as they have been described, it was therefore necessary to take four major steps, which will ultimately affect most if not all of the economic censuses and surveys conducted by the Bureau:

1. Standardisation of census units: defining business units at standard levels, corresponding to the strata in the business structure for which various types of economic statistics are required and can be collected; devising standard rules for identifying such business units.
2. Establishment of an integrated register of business units: identification of the standard units for all businesses to be covered by economic censuses and surveys, and recording them in a register to be used in the running of the censuses and surveys.
3. Standardisation of the industrial classification: adoption of a common system of classification suitable for all censuses and surveys, to which all the standard business units to be covered would be classified without gaps or duplication.
4. Standardisation of data concepts: defining in common terms the basic items of data for which statistics are required across all industries covered by economic censuses and surveys, to permit comparison and aggregation.

Standardisation of census units

Types of unit

The business units as standardised for purposes of the integrated economic censuses are at three levels:

the establishment (and associated administrative offices and ancillary units)
the enterprise, and
the enterprise group.

The central unit from which statistical information is collected is the *enterprise*, defined broadly as an operating legal entity. Where a number of legal entities operate as a group, owned or controlled by a single company, the enterprise is not the group as a whole, but each individual operating legal entity in the group.

The group of legal entities owned or controlled by a single company is recognised as a separate type of unit—the *enterprise group*. This is to be used not for collection of census returns but subsequently, for aggregation of certain census data. The enterprise group, in addition, may be appropriate as the collecting unit for certain types of survey, such as overseas investment and local capital raisings, for which the enterprise would be too narrow. The census data aggregated for enterprise groups will provide a body of statistics directly comparable (when classified by industry) with the results of surveys conducted among enterprise groups.

The basic unit for which most data are to be tabulated is the *establishment*, defined in general as a unit covering all the operations carried on under the ownership of one enterprise at a single physical location—such as an individual factory, shop or mine. Enterprises operating more than one establishment report the data for each of their establishments on an establishment return. They report summary data for all their establishments on enterprise returns, together with some additional data for the enterprise as a whole. Enterprises operating only one establishment supply a combined establishment—enterprise return. For small businesses a special short form is used.

Administrative offices and *ancillary units* are units such as head offices, storage premises, transport garages and laboratories serving or administering establishments within the same enterprise and located away from them. They do not supply separate returns. If they administer or serve only one establishment their figures are included in the total for that establishment, in the establishment return. If they administer or serve more than one establishment their figures are included in the enterprise return. To enable geographical details to be published, certain figures for individual administrative offices or ancillary units are separately specified in the establishment and enterprise returns; these figures are confined to employment, wages and salaries and capital expenditure.

Manufacturers' sales branches located away from establishments are included among the ancillary units, but only if they are of the kind which do not distribute goods to customers from stocks held by themselves. Any which do distribute from stocks in this way are treated as establishments, to be included in the wholesale census.

The word 'operating', in the definition of the enterprise as an operating legal entity, is intended to exclude the numerous 'paper companies' which may exist as parents, subsidiaries or associates of operating companies for various reasons. In general such non-operating companies are attached in the Bureau's lists to individual related operating companies in the enterprise group, for purposes of identifying the enterprise unit. Holding companies without employees are attached to the principal operating company in the group of companies owned by them.

However, subsidiary companies performing financial services for other companies within the group, such as instalment credit companies or companies operating superannuation funds, are recognised as separate enterprises, even though they might have no separate employees of their own. These belong to a different sector of the national accounts from that of trading companies. They are not in the integrated censuses but are covered in separate inquiries.

Some holding companies without operations of their own perform administrative services for some or all of their subsidiary companies and have staff of their own for this purpose. These companies receive a special abridged enterprise return for 'ancillary enterprises'. This abridged return is used also for property-owning companies in an enterprise group which own property used by more than one other enterprise in the group; such companies may be responsible for the capital expenditure of the group.

Some operating companies are found to have the accounts they use for management purposes inextricably mixed with those of a related operating company; in such cases the two companies are amalgamated for statistical purposes to form one enterprise.

The above description of the types of units used in the integrated economic censuses is necessarily abbreviated. For a more extensive description *see The Australian Standard Industrial Classification* (*Preliminary Edition*), *1969, Vol. 1.*

Establishment of integrated register of businesses

The Integrated Register

In order to provide and maintain accurate records of the enterprises and establishments to be covered in economic censuses and surveys it was necessary to set up an *Integrated Register* of businesses. In this register the units of each business corresponding to the three standard levels—establishments (and administrative offices and ancillary units), enterprises and enterprise groups—are identified and numbered in such a way as to record the links between the units at the different levels. The register is recorded on magnetic tapes and provides the means for operating an automated system for addressing and despatching census forms for enterprises and establishments and for handling the subsequent receipt and processing of completed returns.

Much of the information about the parent-subsidiary relationships of companies embodied in the register was originally obtained by means of questionnaires addressed to Group Employers registered with the Commonwealth Taxation Office under the pay-as-you-earn system of income tax deductions. The questionnaires related in addition to the activities carried on at the various locations of the Group Employers, and the results were used together with the lists of establishments used for previous censuses of manufacturing, mining and retail trade, to build up the original integrated register.

The lists recorded in the register are kept up to date by regular checks from a wide variety of sources. In addition to sources used for updating the previous lists of mining, manufacturing and retail establishments (such as factory registrations, lists of retail shops compiled by postmen, etc.) the Bureau collects questionnaires from new Group Employers, and periodically updates the information on larger companies by referring listings produced from the Bureau's current records back to the companies themselves for amendment.

Changes in the establishment concept

The adoption of a new establishment concept in each of the economic censuses entails an unavoidable break in the continuity of the census statistics, in comparisons with previous years. Special analyses are being made from which it is hoped to derive some estimates of the order of magnitude of the changes, for publication along with the results of the integrated censuses. The main changes in the establishment concept affecting the continuity of statistics can be summarised as follows.

1. In general the establishment in each census now consists of the whole of each physical location, operated by one enterprise, whose main activity is within the scope of the census. There is usually one return only for each establishment, classified to the industry of its main activity. This is in contrast to the previous censuses, in which an establishment could be the part of a location engaged in an activity covered by one of the censuses, and separate returns were required, where practicable, if the activities at the location corresponded to different industries in the same census, or different censuses. From the viewpoint of businesses completing census returns, the new establishment concept requires much less apportionment of data between returns than was necessary in previous censuses. There are still some locations which are divided between different censuses, or between different industries in the same census, and which accordingly supply more than one establishment return each. However such cases are restricted broadly to those where the 'secondary' activity produces a substantial revenue. With some specific exceptions described in *The Australian Standard Industrial Classification, Vol. 1*, no separate return is required for such 'secondary' activity unless the gross receipts from its activity amount to $1,000,000 or more.

2. A particular effect of the new concept in manufacturing statistics is that establishments in the manufacturing census now include selling and delivery activities at the location, which were formerly excluded from the scope of the factory establishment. On the other hand, the statistics of factory establishments now exclude manufacturing activity carried on as a minor activity of predominantly retail establishments, such as the making up of blinds to customers' orders, dressmaking at frock shops, etc. However, the continuity of the statistics of commodity output will not necessarily be affected by this change. Manufacturing by retailers and wholesalers is reported in the retail and wholesale trade censuses, and commodity detail for this activity is being collected, at least for the larger establishments.

3. The treatment of outlying parts of an establishment has been standardised: if the outlying part is in the same local government area it is merged with the establishment. Thus, a factory which had extended its operations to a neighbouring location for lack of space would include the extension in its return if it was in the same local government area. Similarly, if two locations in the same local government area and industry (for example, used car lots at different addresses) have common employees and combined accounts, they are treated as a single establishment.

4. Administrative offices and ancillary units located away from establishments (apart from some owned by chain stores) were formerly outside the scope of the censuses, although stock at such locations were to be included in the manufacturing and retail trade returns. As previously mentioned, they are now included in the census return of the establishment they serve, or if they serve more than one establishment they are included in the return supplied for the whole enterprise. In either case they appear in the census statistics for the local government area in which they are located, and for the predominant industry of the establishment or establishments they serve. From the viewpoint of businesses supplying returns this treatment is likely to minimise the need for special adjustment and dissection of data in accounting records, and to produce more homogeneous and meaningful statistics of the industry in which the business operates than before. The inclusion of administrative or ancillary activities in a census is no longer dependent on their being carried out at an establishment; instead they are treated as an integral part of the industry's statistics wherever they are located. Nevertheless, some published tables will show certain data separately for administrative offices and ancillary units. This treatment of ancillary units is expected to cause some former manufacturing establishments to become ancillary units: for example, engineering workshops doing maintenance and repair work on the plant and equipment of establishments in the same enterprise, and located away from them. The statistics of those items which are still reported for ancillary units (that is, employment, wages and salaries, and capital expenditure), will be included in the statistics for the industry of the establishments served by the ancillary units, instead of the industry to which the workshops were classified. If the establishments served are outside the scope of the integrated censuses, of course, the workshops will disappear from the scope of the manufacturing census.

5. The establishment concept used for the electricity and gas industries is an exception to the general concept. Because of the nature of their activities, the single operating location is not suitable as a basis for the establishment engaged in producing or distributing electricity or gas. The establishment unit used consists of all locations operated by the enterprise in the one State.

Standardisation of the industrial classification

Australian Standard Industrial Classification

The Australian Standard Industrial Classification (ASIC), which is a prerequisite to the integration of the economic censuses and surveys, is described in a publication of the Bureau: *Australian Standard Industrial Classification* (*Preliminary Edition*), 1969, *Vol.* 1. The classification system described in that publication defines the industries for which statistics are collected in the economic censuses, thus permitting the scope of each census to be marked out without any gaps or overlapping between them. It also defines the statistical units (establishments, administrative offices and ancillary units, enterprises, etc.) which are classified by industry, and lays down standard rules for identifying them and coding them to the industries of the classification.

Besides being used in the 1968–69 economic censuses, the ASIC will be used in other economic censuses and surveys, population censuses and surveys, and other statistics (national accounts, etc.) derived from the basic statistics. Data classified according to the ASIC can be converted to conform essentially with the International Standard Industrial Classification. It is proposed to publish summary tables of census results converted in this way, to facilitate international comparisons.

The structure of the ASIC comprises four levels. The broadest of these is the 'Division' level, which relates to wide categories such as 'Manufacturing', 'Wholesale and Retail Trade', and 'Community Services'. The structure may be illustrated by the following example. A factory mainly engaged in making aluminium window frames would be classified to:

Division	C	Manufacturing
Sub-division	31	Fabricated metal products
Group	311	Fabricated structural metal products
Class	3112	Architectural aluminium products

The fundamental concept of the ASIC is that an industry, that is an individual class, or group, etc., in the ASIC, is an entity composed of the establishments, administrative offices and/or ancillary units which have been classified to it.

Each ASIC class is defined in terms of a specified range of economic activities, designated as primary to it. (Manufacturing aluminium window frames, as shown in the above example, is primary to class 3112.) Similarly, each ASIC group is defined in terms of the economic activities designated as primary to the classes within that group, and so on. An establishment which is engaged mainly in economic activities which have been designated as primary to a particular class is classified to that class whether or not that establishment is also engaged in other 'secondary' activities. An administrative office or ancillary unit will be classified to an ASIC class according to the predominant industry of the establishments it administers or serves, while an enterprise will be classified according to the predominant industry of its establishments and ancillary units.

Standardisation of data concepts: establishment statistics

In previous economic censuses much of the data asked for in one census was broadly similar to data asked for in others. All asked for employment, and the manufacturing and mining censuses asked for value of output and the cost of materials, fuels, etc. used, from which value added could be derived—somewhat similar to the gross margin that could be derived in the retail trade census by subtracting the value of purchases from the value of sales and adjusting for stock changes. Value of stocks was asked for in manufacturing and retail trade censuses, and fixed capital expenditure (in the form of 'additions and replacements' to fixed tangible assets) was asked for in manufacturing and mining censuses.

With integration of the economic censuses it became necessary to seek a common conceptual basis for the items of data of this kind, not merely in order to suit the needs of the Bureau in compiling national accounts estimates or deriving benchmark statistics for monthly or quarterly surveys or employment and earnings series, although these were important reasons for doing so. It was also necessary to find such a common basis in order to enable the returns to be completed more readily and accurately by the enterprises responsible for them. As the enterprise is the basic unit from which statistics are collected in the censuses, the data for the establishment returns had to be capable of being drawn from the records of the enterprise in such a way that they could be reconciled with the corresponding totals for the enterprise as a whole. The establishment returns for a single enterprise with more than one establishment might belong to different economic censuses, but they would need to balance with a single enterprise return for the whole enterprise. This enterprise return is common to all industries and all economic censuses.

The key items of data entering into this reconciliation, and therefore requiring a common conceptual basis, are:

turnover,
stocks,
purchases and selected expenses,
employment,
salaries and wages,
fixed capital expenditure.

These key items also encompass the main benchmark data required for improving the accuracy of quarterly sample surveys and employment and earnings series, and the data needed from establishments for consistent estimating of the main national accounts aggregates.

In order to provide for the inclusion of these key items in all censuses, questions on fixed capital expenditure, wages and salaries, and selected expenses were added to the retail trade census forms, and questions on stocks to the mining census forms.

A table at the end of this article sets out in skeleton form the content of the establishment forms and the enterprise form for an enterprise with more than one establishment, to illustrate the inter-relationships among the forms and among the data items in the 1968–69 economic censuses. A more detailed discussion of particular data items will be found in the 1968–69 economic census preliminary bulletins to be published early in 1971.

Value added

The fundamental measure of the 'magnitude' or importance of an establishment, in economic censuses, is its value added.* This measure can be aggregated for all establishments and industries covered by the censuses without duplication and is the concept generally accepted throughout the world as the measure of the relative importance of industries in economic censuses. It means the value added to materials in manufacturing, the value of minerals mined less that of the materials used in mining, and the value added to merchandise in retail and wholesale trading.

In the integrated economic censuses the common measure of value added in all industries is as follows:

value added *equals* turnover *plus* increase in stocks *minus* purchases, transfers in and selected expenses.

'Transfers in' are goods transferred from another establishment of the same enterprise, either for further processing or for sale. ('Transfers out' are included in turnover.) The 'selected expenses', do not include salaries and wages, interest, rent, depreciation, or overhead expenses usually recorded only for the enterprise as a whole. Broadly speaking, therefore, the value added is the source from which establishments derive the surplus to meet salaries and wages, interest, rent, depreciation and overhead expenses of the enterprise (that is, those not specified as 'selected expenses' on establishment forms), and to provide a contribution to the profits of the enterprise.

Value added is the concept corresponding to value of production in manufacturing and mining censuses in the past, although it is derived in a different manner. Value of production was obtained by deducting the cost of materials, fuel, etc., used, from the value of output at the factory or mine. Further points of difference appear below in the detailed explanation of items of turnover and purchases, etc.

Turnover

This item includes the components listed below.

Manufacturing, mining, electricity and gas censuses:
  sales of goods produced by the establishment;
  sales of goods not produced by the establishment;
  transfers of goods out to other establishments of the same enterprise;
  bounties and subsidies on production;
  all other operating income (that is, excluding revenue from rent and leasing, interest other than hire purchase interest, dividends, and sales of fixed tangible assets);
  capital work done for own use or for rental or lease.
Retail and wholesale trade censuses:
  sales of goods (owned by the enterprise);
  transfers of goods out to other establishments of the same enterprise (wholesale only);
  selling and purchasing commissions received (wholesale only);
  all other operating income (with the same exclusions as above);
  goods withdrawn from stock for own use (as fixed tangible assets, or for rental or lease).

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* *See* page 1053 below for discussion of the allied concept of gross product.

It will be seen that, despite the differences in the terms used for its components, the concept of turnover is identical in all the integrated economic censuses. In all these censuses, similarly, the details shown in the section of the form for sales of individual commodities are required to agree with one of the items of turnover: sales of goods produced by the establishment, for factories and mines; and sales of goods (owned by the enterprise) for retail and wholesale trade. The commodity details in the manufacturing census now relate to the value of sales instead of the value of output, as formerly, although the output of individual commodities is still asked for in terms of quantities, along with the quantity and value of their sales.

In the case of the mining census, the value of output (valued at or near the mine) will be calculated or estimated, as a supplementary series, and will continue to be published.

Stocks

The main change to statistics of stocks brought about by the integration of the censuses is due to the use of the new establishment concept: the statistics will relate to total stocks of the establishment, not merely those associated with the main activity covered by the census. Thus manufacturing establishments now include in their returns any stocks of merchanted goods held, and retail establishments include any stocks of materials held for wholesaling or manufacturing. For mining there is a division in the "finished-goods" category between "minerals produced in this establishment" and stocks of "other goods and minerals purchased for resale". This is to enable a reconciliation to be made between the aggregate stocks figures and the commodity details of stocks, production and sales of minerals.

Purchases and selected expenses

Manufacturing and mining

(1) The new way of deriving value added (that is, as compared with the previous way of deriving value of production) has required that value of purchases be asked for instead of the value of materials, etc., used. The commodity detail in the manufacturing census form is still in respect of usage of materials, etc., but the total figure is on the basis of purchases.

(2) The value of purchases on the form is supplemented by the value of transfers in from other establishments of the enterprise.

(3) In accordance with the broadened establishment concept, purchases of goods for resale are included as well as purchases of materials for use in manufacturing or mining.

(4) Because sales by manufacturing establishments are now valued at actual sales value, whereas factory value of output as asked for in previous censuses was valued on a "factory-door" basis excluding delivery expenses, some additional expense items are now collected. These are: "outward freight and cartage" and "motor vehicle running expenses". "Sales commission payments" is also included. These three items are among those deducted from turnover in deriving value added.

(5) In the mining census, output was formerly valued at point of sale, with transport costs shown separately, to enable value at mine to be calculated within the Bureau. In the new census the point-of-sale basis is retained for sales, but the transport cost item is replaced by the standard three items included in all censuses: outward freight and cartage, and motor vehicle running expenses. Sales commission payments are also asked for. As in the other censuses, these relate only to payments made outside the enterprise, as any employees of the mining establishment engaged in transport or selling the mine's products (with certain exceptions for major own-account rail and sea transport operations above a certain traffic limit) are treated as part of the mining establishment.

(6) Charges for commission work and subcontract work are specified as separate items of expense.

Retail and wholesale trade

(1) Because of the extension of the establishment concept, purchases in the retail trade census now include goods purchased for wholesale sale as well as those for retail sale. (Similarly the purchases item in the wholesale trade census includes purchases for retail as well as wholesale sale.)

(2) For the same reason, there are items "purchases of materials for manufacturing" and "charges for commission and subcontract work" in both censuses.

(3) The items "outward freight and cartage", "motor vehicle running expenses" and "sales commission payments" are included for the same reasons as the corresponding items in the manufacturing and mining censuses.

(4) To complete the range of expenses of retail and wholesale establishments in order to enable value added to be derived consistently, there is a "residual" item: "purchases of wrapping and packaging materials, electricity and fuel, repair and maintenance expenses".

Transfer values

As mentioned earlier, turnover in all censuses except the retail trade census includes transfers of goods out to other establishments of the same enterprise. (Any transfers between retail establishments are provided for by having purchases reported inclusive of transfers in, and net of transfers out.) Similarly transfers in from other establishments of the same enterprise are included among the items of purchases, etc., deducted in deriving value added. Transfers, both in and out, are confined to transfers of goods. Services provided by one establishment to another in the same enterprise, in general, are not included among transfers (or sales) even if a charge is made. (However, in certain cases described below a commission is imputed to establishments selling or doing manufacturing work, on behalf of other establishments of the enterprise.)

In particular, transport services provided by one establishment to another within the same enterprise are not treated as transfers. Any charges made by the establishment are not to be treated as income, or as freight and cartage by the other establishment. An exception is made only for shipping services within an enterprise, and rail services above a certain minimum ton-mileage, where the transport services are treated as separate establishments of the enterprise (outside the scope of the censuses) but charging the other establishments freight and cartage.

The integrated censuses adopt a new approach to the valuation of transfers. In the previous censuses of manufacturing and mining, transfers out were to be included by implication in the value of output, and valued at selling value excluding delivery costs in the same way as goods sold independently. Transfers in were included in the value of materials used, with no special instruction about valuation. In the integrated censuses, the transfer value sought is the value for which the goods would have been sold to the establishment to which they were transferred if it had been under separate ownership, i.e. commercial value. However, if such a transfer value cannot be given or estimated, alternatives are provided.

In large important cases where the goods cross State or industry boundaries, estimates of commercial transfer values are worked out in consultation with the enterprises concerned. But otherwise actual book values are asked for, with the basis to be indicated (factory cost, cost plus a margin, wholesale selling value, etc.). If no commercial transfer values can be estimated, either by the enterprise or the Bureau, from market information, these book values are adjusted within the Bureau by a conventional method which gives all the establishments concerned a share of any surplus earned by the enterprise, and which provides values consistent for transfers out and the corresponding transfers in.

Some factories keep no book value for transfers (for example, a factory distributing its products through sales branches but keeping only one set of sales and stocks accounts, or a clothing factory supplying cut-out materials to be made up by outlying branch factories). In these cases no transfer value is estimated; the work done by the receiving establishment (whether sales branch or factory) is treated as done on commission for the supplying establishment, and a commission is imputed to it, while the sales and the stocks remain on the supplying establishment's return, which is charged with the amount of imputed commission.

Transfers are restricted to physical transfers of goods, and do not include transfers existing in books of account only. This is consistent with the distinction made between manufacturers' sales branches handling stocks, which are treated as wholesale establishments, and manufacturers' sales branches not handling stocks (such as order-taking offices, or sales representatives' offices), which are treated as ancillary units. Sales between enterprises of an enterprise group are not treated as transfers, even though they may not be at commercial values.

Employment, salaries and wages

The main changes made in the employment and wages and salaries part of the forms for 1968–69 were in the direction of simplification. With the new concept of the establishment, for example, it is not necessary for manufacturers to deduct any 'non-manufacturing' employees (such as sales and delivery employees) or their earnings. All employees are to be included, and this includes employment at any ancillary units or administrative offices serving the establishment only—employees likely to be included in the payroll of the establishment in any case. As mentioned earlier, separate geographical detail will be published for units of this type, including those reported on enterprise returns.

Rent and leasing expenses

Annual rent paid has been included in the censuses of manufacturing and mining in the past, but the figures were used to estimate the capital value of rented assets, for inclusion in the statistics of the value of fixed assets, and were not published themselves.

In the 1968–69 censuses rent and leasing expenses have been included in the establishment forms for all censuses, and in the enterprise form. It is intended to publish the results, which will be of particular interest in retail and wholesale trade and in some manufacturing industries. The extension to include leasing expenses reflects interest in the growth of leasing activity.

Fixed capital expenditure

Fixed capital expenditure has not appeared on retail trade census forms in the past, and in manufacturing and mining censuses has appeared in the form of 'additions and replacements', an item used in the year-to-year reconciliation of the value of fixed assets. In the design of the integrated census forms the opportunity was taken to ask for fixed capital expenditure in the detail needed for national expenditure estimates and survey benchmarks, and most likely to be of general use as well. It has been impossible in the past, in estimating fixed capital expenditure for national accounts, to reconcile manufacturing censuses with business surveys, or with the statistics obtained from tax sources. Differences in scope, definitions, etc., meant that the estimates could be fitted into the national accounts framework only with a great deal of uncertainty. The integration of the censuses and the surveys should do much to improve the quality of the estimates in future.

The integration of establishment and enterprise returns will make it possible to combine the industry and geographical detail yielded by establishment returns with the desired conceptual basis of 'ownership of assets' which only enterprise returns permit. In other words, the forms have been designed to provide statistics of fixed capital expenditure by enterprises on assets owned by them and located at their establishments.

The general basis of the fixed capital expenditure figures is: purchases of new and secondhand assets *less* sales of secondhand assets. (For establishments of multi-establishment enterprises, purchases include acquisitions by transfer from other establishments of the enterprise and sales include disposal by transfer to such establishments.) On this basis the capital expenditure of an industry will include net acquisition of secondhand assets acquired from other industries. However, it is possible to get a total for fixed capital expenditure on new assets for each industry, as the type-of-transaction breakdown provides for this.

The traditional type-of-asset breakdown was extended to show motor vehicles as a separate class as well as land and buildings, and plant and machinery. In addition, 'land' was included with secondhand assets in the type-of-transaction breakdown, to make sure that it was not included by some in new assets.

An additional dissection of fixed capital expenditure is possible: by type of unit, that is, distinguishing between establishments, on the one hand, and administrative offices and ancillary units on the other.

Value of fixed assets

The manufacturing and mining censuses previously included a section on the book value of land and buildings, plant and machinery. This was dropped from the census forms for establishments in 1968–69, but included in the returns for enterprises, including those in retail and wholesale trade, as well as manufacturing and mining (and electricity and gas).

Gross margin in retail and wholesale trade

Besides publishing value added in retail and wholesale trade, it is proposed to publish derived statistics of *gross margin* for these censuses, both as an absolute figure and as a percentage of sales. These would make use of specific items of sales and purchases relating to trading transactions, as distinct from manufacturing and other activities secondary to these industries.

Gross margin in retail and wholesale trade would be derived as follows:

> sales, transfers out(*a*) and withdrawals from stock for own use (*less* any sales or transfers out(*a*) of goods manufactured by the establishment)(*b*) *plus* increase in stocks *less* purchases of goods for resale and transfers in *equals* gross margin.

There is some approximation in the resulting figure, as the value of stocks in retail and wholesale trade censuses includes stocks held for any manufacturing or other non-trading activity carried on, as well as those held for retail or wholesale trading. Purchases of goods for resale, also, may include some materials purchased for use in repair work. However, this is considered unlikely to distort the figures significantly in the industry classes for which they are published, and certainly will not prevent them from being put to good use by those interested in analysing distribution statistics. It should be noted that gross margins relate only to transactions in 'owned goods', not in goods sold on commission. (As already pointed out, the commodity detail in wholesale trade returns also relates only to owned goods.) To supplement the tables showing gross margins, there will be tables showing average rates of commission earned by establishments in various wholesale trade industries and types of operation.

(*a*) Transfers out in wholesale census only. (*b*) Owned goods only.

Standardisation of data concepts: enterprise statistics

The statistics derived for enterprises from the integrated censuses are standardised because a common enterprise form is used for multi-establishment enterprises, whatever the industry in which their establishments operate, and for single-establishment enterprises the special 'enterprise' items were common to all forms.

Gross product statistics

Earlier it was said that the new integrated censuses will provide valuable data directly applicable to national accounts estimates. One of the most important items of data of this kind is gross product (measured at market price) and gross product at factor cost. These concepts are related very closely to value added:

> Gross product at factor cost = value added *plus* rent and leasing revenue *minus* rent and leasing charges *minus* all other expenses *minus* land tax, rates and payroll tax.
>
> (This concept differs from that at present employed in the Bureau's national accounts publications, in that it includes net rent and leasing revenue. It accords with the new SNA* concept, and will in due course be adopted in the Australian national accounts.)

Thus, to derive gross product at factor cost the enterprise income item rent and leasing revenue is needed. Rent and leasing *expenses* are in establishment forms as well as enterprise forms; the reason why they appear there, but not rent and leasing *revenue*, is that the expenses are directly associated with the establishment itself, while the revenue is frequently a form of investment or property income associated with the whole enterprise rather than any particular establishment. This is not true of revenue derived from the hiring-out of consumer goods by establishments, and the forms provide for this to be reported in 'other income' in the retail establishment returns. Some special action will also be taken about some types of wholesale establishment whose main source of income is leasing revenue.

The additional enterprise *expense* items needed are 'other expenses', and land tax, rates and payroll tax. These appear on the enterprise forms used in the integrated censuses.

The item 'other expenses' will probably be of some value to users of the enterprise statistics, quite apart from its purpose in the derivation of gross product. It represents an aggregate of overhead 'non-operating' expenses, all payable outside the enterprise, and each enterprise in a particular industry could usefully compare its own figure for this with the total for the industry.

Gross product at market prices can be derived from gross product at factor cost, but not without some estimation of components not directly provided by the integrated economic censuses:

> Gross product at market price *equals* gross product at factor cost *plus* land tax, rates and payroll tax, *plus* sales tax and estimates for other indirect taxes not included in the census forms, *less* subsidies (from establishment returns).

The indirect taxes not included in the census forms are taxes such as stamp duties and motor registration fees.

Gross product estimates for establishments

For national accounting purposes it is desirable to have statistics of gross product at factor cost with establishments as the unit of tabulation, as well as the series based on enterprises. This is because the industrial and geographical detail required go beyond what is likely to be possible at the enterprise level. (Gross product by States, for example, is not available without splitting enterprises into smaller units.) To derive statistics of gross product for establishment units it is necessary to adopt conventional rules for spreading the overhead expenses of enterprises not collected on establishment returns.

Other enterprise statistics

Statistics which it is expected could be published for enterprises, in suitable tabulations by industry, will include:

Number of enterprises
Number of establishments (operated by enterprises in the industry)
Turnover
Stocks, opening and closing
Purchases and selected expenses
Value added
All other expenses
Land tax, rates and payroll tax
Gross product at factor cost
Rent and leasing expenses paid

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* *A System of National Accounts*, United Nations Statistical Office, *ibid.*

Rent and leasing revenue
Wages and salaries
Employer contributions to superannuation schemes
Gross operating surplus
Interest paid
Royalties paid
Interest received
Royalties received
Depreciation
Fixed capital expenditure
Value of fixed tangible assets
Employment

Statistics for enterprise groups

The choice of statistics to be published for enterprise groups is being examined. By the nature of the censuses, it will not be possible to derive consolidated statistics of such items as turnover, interest or rent. However, it should be possible to publish a useful body of statistics for enterprise groups, in suitable broad industry groupings, by aggregation of statistics of the enterprises within the scope of the censuses.

MAIN ITEMS ON INTEGRATED ECONOMIC CENSUS RETURNS, 1968-69(*a*)

(For enterprises with more than one establishment)

Establishment returns		*Enterprise return*
Factory, mines, electricity, gas	*Retail, wholesale, selected services*	
SALES, ETC.	SALES, ETC.	
Sales of goods produced by this establishment (ex-tax) (*b*)	Sales of goods (owned by the enterprise) (ex-tax)(*b*)	
Sales of goods not produced by this establishment (ex-tax)	(Sales of goods produced in this establishment, included above)	
Subsidies	Commission received on sales of goods for other enterprises (wholesale only)	
All other income from outside the enterprise *except* rents, leasing revenue, interest and dividends	All other income from outside the enterprise *except* rents, leasing revenue, interest and dividends	
Capital work on own account	Capital goods withdrawn from stock on own account	
Total sales, etc.	Total sales, etc.	Sales, etc.(*c*)
STOCKS	STOCKS	STOCKS
At 30 June 1968	At 30 June 1968	At 30 June 1968(*c*)
At 30 June 1969	At 30 June 1969	At 30 June 1969(*c*)
PURCHASES AND SELECTED EXPENSES	PURCHASES AND SELECTED EXPENSES	
Purchases of materials, fuel, etc.(*d*)	Purchases of goods for resale	
Purchases of goods for resale	Purchases of materials for manufacturing	
Repair and maintenance expenses	Purchases of wrapping and packaging materials and electricity and gas; repair and maintenance	
Charges for sub-contract and commission work	Charges for sub-contract and commission work	
Outward freight and cartage	Outward freight and cartage	
Motor vehicle running expenses	Motor vehicle running expenses	
Sales commission payments	Sales commission payments	
Total above purchases and expenses	Total above purchases and expenses	Purchases and selected expenses(*c*)

For footnotes *see* next page.

MAIN ITEMS ON INTEGRATED ECONOMIC CENSUS RETURNS, 1968–69(*a*)—*continued*

(For enterprises with more than one establishment)

Establishment returns		*Enterprise return*
Factory, mines, electricity, gas	*Retail, wholesale, selected services*	
TRANSFERS	TRANSFERS	
Transfers of goods out (to other establishments of the enterprise)	Transfers of goods out (to other establishments of the enterprise) (wholesale only)	
Transfers of goods in (from other establishments of the enterprise)	Transfers of goods in (from other establishments of the enterprise)	
Rent and leasing charges	Rent and leasing charges	Rent and leasing charges(*c*)
Depreciation	Depreciation	Depreciation
Wages and salaries(*e*)	Wages and salaries(*e*)	Wages and salaries(*e*)(*c*)
Sales tax	Sales tax	Sales tax
Fixed capital expenditure	Fixed capital expenditure	Fixed capital expenditure
Employment(*e*)	Employment(*e*)	Employment(*c*)(*e*)
		Land tax, rates and payroll tax Interest payments Royalty payments Employer contributions to superannuation schemes All other expenses(*f*)
		Rent and leasing revenue Interest receipts Revenue from royalties
		Value of fixed tangible assets

(*a*) The outline omits some details. For example stocks are shown by stage of processing in the enterprise return and in the establishment returns for factories, mines, electricity and gas; capital expenditure is shown in all returns by type of asset and distinguishing new and secondhand assets, and purchases and disposals; employment and salaries and wages are broken down by type in establishment returns. However, the reconciliation between establishment and enterprise returns makes use only of the summary totals shown in the last column of the table. (*b*) To agree with total of sales in detailed commodity part of return. (*c*) Separate totals for these items are shown in enterprise return for: all establishments in the integrated censuses combined; all administrative offices and ancillary units reported on enterprise returns; all units of the enterprise in industries not covered by the integrated censuses. These three totals add up to the enterprise total. (*d*) To be compatible with total value of materials, etc., used in detailed commodity part of return (along with transfers in). (*e*) The return has an additional figure for this item for each separately located administrative office or ancillary unit reported in the return; this is to permit tabulation in fine geographical detail. (*f*) A single total, including travelling expenses, insurance premiums, accounting and legal costs, postage and telephone charges, office supplies, advertising, bank charges and the like, but not 'provisions'.

STATISTICAL SUMMARY: AUSTRALIA

In earlier issues of the Year Book, it was the practice to include in the Statistical Summary figures for every tenth year of the period 1861 to 1901, plus the latest year for which data were available. In each subsequent issue the latest year available was substituted for the year immediately preceding it until the next tenth year had been reached, and the earliest year in the series was eliminated as space was needed. In consequence of this system no single issue of the Year Book contained a continuous yearly series.

In this and recent issues of the Year Book, this defect has been remedied in part by the inclusion of a continuous series back to the year 1941, with earlier tenth years back to 1901 (the National Accounts series on page 1066 has been carried back to 1900–01 in single years). In issue No. 39, pages xxviii–xxix, some of the series are shown for every tenth year from 1861 to 1941. There are, however, discrepancies between the original series and the series now published.

It is intended that in future issues of the Year Book, as circumstances permit, the continuous series will be carried further back and that other series will be added, although it will not be possible to carry all of them back to the earlier years.

Breaks in series, preliminary figures, etc. are indicated by the symbols shown on page xiii of this Year Book.

STATISTICAL SUMMARY: AUSTRALIA

DEMOGRAPHY

Year ended 31 December—	*Population(a)*			*Natural increase*	*Overseas migration(b)*	*Marriages*		*Divorces (c) and judicial separations*	*Births*		*Deaths*		*Infant deaths*	
	Males	*Females*	*Persons*			*No.*	*Rate(d)*		*No.*	*Rate(d)*	*No.*	*Rate(d)*	*No.*	*Rate(e)*
	'000	'000	'000	'000	'000	'000		No.	'000		'000		'000	
1901	2,005	1,820	3,825	56.6	17.8	28	7.3	398	103	27.2	46	12.2	10.7	103.6
1911	2,382	2,192	4,574	74.3	77.7	39	8.8	509	122	27.2	48	10.7	8.4	68.5
1921	2,799	2,712	5,511	82.1	17.3	47	8.6	1,490	136	25.0	54	9.9	9.0	65.7
1931	3,333	3,220	6,553	61.9	−10.8	39	6.0	1,969	119	18.2	57	8.7	5.0	42.1
1941	3,599	3,545	7,144	(f) 63.3	(g) 5.2	75	10.6	3,351	135	18.9	(h) 71	(h) 10.0	5.3	39.7
1942	3,620	3,581	7,201	(f) 61.5	(g) 6.2	86	12.0	3,588	137	19.1	(h) 75	(h) 10.5	5.4	39.5
1943	3,648	3,621	7,270	(f) 74.8	(g) 1.3	68	9.4	4,686	149	20.6	(h) 74	(h) 10.3	5.4	36.3
1944	3,683	3,664	7,347	(f) 83.7	(g) −2.2	68	9.3	5,691	153	21.0	(h) 70	(h) 9.5	4.8	31.3
1945	3,722	3,708	7,430	(f) 90.3	(g) −2.6	63	8.5	7,213	161	21.7	(h) 70	(h) 9.5	4.7	29.4
1946	3,767	3,751	7,518	(f) 101.7	(g) −15.1	79	10.6	7,235	176	23.6	(h) 75	(h) 10.0	5.1	29.0
1947	3,828	3,810	7,638	(f) 108.9	(g) 10.6	76	10.1	8,803	182	24.1	(h) 73	(h) 9.7	5.2	28.5
1948	3,909	3,884	7,792	101.1	55.1	75	9.7	7,253	178	23.1	77	10.0	4.9	27.8
1949	4,047	3,998	8,046	106.0	150.0	73	9.2	6,626	181	22.9	75	9.5	4.6	25.3
1950	4,191	4,116	8,307	112.4	152.5	76	9.2	7,428	191	23.3	78	9.6	4.7	24.5
1951	4,311	4,217	8,528	111.5	111.4	77	9.2	7,330	193	23.0	82	9.7	4.9	25.2
1952	4,426	4,314	8,740	120.1	94.0	74	8.6	7,110	202	23.4	82	9.5	4.8	23.8
1953	4,503	4,399	8,903	122.0	42.9	71	8.0	8,043	202	22.9	80	9.1	4.7	23.3
1954	4,598	4,492	9,090	120.5	68.2	71	7.9	6,528	202	22.5	82	9.1	4.5	22.5
1955	4,714	4,598	9,312	125.6	97.3	72	7.8	6,782	208	22.6	82	8.9	4.6	22.0
1956	4,829	4,702	9,531	126.0	94.0	72	7.6	6,492	212	22.5	86	9.1	4.6	21.7
1957	4,930	4,814	9,744	135.4	78.7	74	7.6	6,374	220	22.9	85	8.8	4.7	21.4
1958	5,026	4,921	9,947	138.8	65.4	74	7.5	6,994	223	22.6	84	8.5	4.6	20.5
1959	5,132	5,029	10,161	137.8	76.8	74	7.4	7,370	227	22.6	89	8.9	4.9	21.5
1960	5,253	5,139	10,392	141.9	90.1	75	7.3	6,709	230	22.4	88	8.6	4.6	20.2
1961	(i) 5,374	(i) 5,268	(i) 10,643	151.0	61.5	77	7.3	6,751	240	22.8	89	8.5	4.7	19.5
1962	5,470	5,376	10,846	143.9	62.5	79	7.4	7,290	237	22.2	93	8.7	4.8	20.4
1963	5,572	5,484	11,055	140.8	71.6	81	7.4	7,515	236	21.6	95	8.7	4.6	19.5
1964	5,683	5,597	11,280	128.6	99.3	86	7.7	7,967	229	20.6	101	9.0	4.4	19.1
1965	5,794	5,712	11,505	123.1	104.9	94	8.2	8,534	223	19.6	100	8.8	4.1	18.5
1966	5,895	5,816	11,710	118.7	86.9	96	8.3	9,921	223	19.3	104	9.0	4.0	18.2
1967	6,005	5,924	11,929	(i) 126.6	91.9	(i) 100	(i) 8.5	9,746	(i) 229	(i) 19.4	(i) 103	(i) 8.7	(i) 4.2	(i) 18.3
1968	6,129	6,045	12,173	131.4	113.1	106	8.8	10,789	241	20.0	110	9.1	4.3	17.8
1969	6,267	6,179	12,446	143.7	129.0	112	9.1	10,979	250	20.3	106	8.7	4.5	17.9

(a) At 31 December. (b) Excess of arrivals over departures. Minus sign (−) indicates excess of departures over arrivals. (c) Decrees made absolute, including decrees for nullity of marriage. (d) Number per 1,000 of mean population. (e) Number per 1,000 live births. (f) Excess of births over civilian deaths from September 1939 to June 1947. (g) Excludes movements of defence personnel from September 1939 to June 1947. (h) Excludes deaths of defence personnel from September 1939 to June 1947. (i) Includes Aborigines.

PRIMARY INDUSTRIES

AGRICULTURE

Season	Wheat			Oats			Barley			Maize		
	Area	Yield	Average yield	Area	Yield	Average yield	Area	Yield	Average yield	Area	Yield	Average yield
	mil. acres	mil. bus	bus	'000 acres	mil. bus	bus	'000 acres	mil. bus	bus	'000 acres	mil. bus	bus
1901–02 .	5.1	39	7.5	461	9.8	21.2	75	1.5	20.4	295	7.0	23.9
1911–12 .	7.4	72	9.6	617	9.6	15.5	116	2.1	17.7	340	8.9	26.3
1921–22 .	9.7	129	13.3	733	12.1	16.6	299	6.1	20.4	305	7.8	25.7
1931–32 .	14.7	191	12.9	1,085	15.2	14.0	342	6.3	18.4	269	7.1	26.2
1941–42 .	12.0	167	13.9	1,460	22.3	15.3	784	18.0	23.0	301	7.4	24.7
1942–43 .	9.3	156	16.8	1,497	21.5	14.4	451	8.3	18.4	285	6.9	24.2
1943–44 .	7.9	110	13.9	1,415	17.7	12.5	443	7.6	17.1	283	7.4	26.3
1944–45 .	8.5	53	6.3	2,034	9.0	4.4	614	5.0	8.2	257	6.5	25.2
1945–46 .	11.4	142	12.5	1,949	25.8	13.2	699	11.1	15.9	236	5.7	24.3
1946–47 .	13.2	117	8.9	1,728	15.6	9.0	748	11.6	15.5	260	5.8	22.4
1947–48 .	13.9	220	15.9	2,105	40.7	19.3	839	20.9	24.9	223	6.2	27.7
1948–49 .	12.6	191	15.2	1,770	23.6	13.3	1,012	17.8	17.6	182	5.2	28.5
1949–50 .	12.2	218	17.8	1,748	27.4	15.7	1,040	19.5	18.8	194	6.0	31.0
1950–51 .	11.7	184	15.8	1,757	25.1	14.3	1,079	22.9	21.2	169	4.7	27.9
1951–52 .	10.4	160	15.4	2,365	34.5	14.6	1,118	21.9	19.6	170	4.0	23.7
1952–53 .	10.2	195	19.1	2,764	43.6	15.8	1,377	35.0	25.5	174	5.0	28.5
1953–54 .	10.8	198	18.4	2,137	33.0	15.4	1,803	41.3	22.9	179	5.1	28.4
1954–55 .	10.7	169	15.8	2,574	32.8	12.8	1,691	29.4	17.4	170	5.1	29.9
1955–56 .	10.2	195	19.2	3,354	56.5	16.8	1,894	41.7	22.0	167	4.8	28.4
1956–57 .	7.9	134	17.1	2,556	35.4	13.8	2,093	49.3	23.5	182	5.5	30.3
1957–58 .	8.8	98	11.0	2,959	31.4	10.6	2,121	30.5	14.4	184	5.6	30.6
1958–59 .	10.4	215	20.7	3,974	86.9	21.9	2,381	63.0	26.5	180	6.7	37.4
1959–60 .	12.2	199	16.3	3,030	46.8	15.5	2,379	34.2	14.3	185	6.7	36.4
1960–61 .	13.4	274	20.4	3,637	76.1	20.9	2,830	68.0	24.0	185	6.2	33.8
1961–62 .	14.7	247	16.8	3,097	55.1	17.8	2,383	41.5	17.4	211	7.3	34.7
1962–63 .	16.5	307	18.6	3,292	68.8	20.9	2,027	39.6	19.5	209	7.5	35.6
1963–64 .	16.5	328	19.9	3,392	68.2	20.1	2,013	43.4	21.6	215	6.7	31.3
1964–65 .	17.9	369	20.6	3,497	70.0	20.0	2,064	49.3	23.9	212	6.9	32.4
1965–66 .	17.5	260	14.8	3,768	60.7	16.1	2,298	41.8	18.2	197	4.9	25.0
1966–67 .	20.8	467	22.4	4,258	107.1	25.2	2,498	61.6	24.7	201	7.5	37.2
1967–68 .	22.4	277	12.4	3,380	39.6	11.7	2,611	36.8	14.1	200	7.1	35.6
1968–69 .	26.8	544	20.3	3,872	94.3	24.3	3,314	72.6	21.9	176	6.9	38.8
1969–70p .	23.4	398	17.0									

AGRICULTURE—*continued*

Season	Hay			Potatoes			Sugar-cane(a)			Vineyards		All crops
	Area	Yield	Average yield	Area	Yield	Average yield	Area	Yield	Average yield	Area	Wine made	Area
	'000 acres	'000 tons	tons	'000 acres	'000 tons	tons	'000 acres	'000 tons	tons	'000 acres	mil. gal	mil acres
1901–02 .	1,688	2,025	1.20	110	323	2.94	87	1,368	15.7	64	5.3	8.4
1911–12 .	2,518	2,868	1.14	130	301	2.31	101	1,682	16.7	61	5.0	12.1
1921–22 .	2,995	3,902	1.30	149	388	2.60	128	2,437	19.0	92	8.5	15.4
1931–32 .	2,635	3,167	1.20	145	397	2.74	242	4,213	17.4	115	14.2	21.2
1941–42 .	2,758	3,575	1.30	99	333	3.35	255	5,154	20.3	130	15.6	(*b*)20.5
1942–43 .	2,359	3,116	1.32	140	484	3.45	241	4,692	19.5	130	19.1	(*b*)17.5
1943–44 .	2,044	2,717	1.33	192	599	3.12	229	3,688	16.1	129	19.1	(*b*)16.1
1944–45 .	2,409	1,994	0.83	242	881	3.64	226	4,598	20.3	129	13.9	(*b*)17.7
1945–46 .	2,757	3,493	1.27	176	646	3.67	236	4,718	20.0	129	24.9	(*b*)20.6
1946–47 .	2,006	2,357	1.18	145	544	3.76	227	4,027	17.7	130	32.0	(*b*)21.3
1947–48 .	1,970	3,008	1.53	146	498	3.42	222	4,418	19.9	132	32.9	(*b*)22.5
1948–49 .	1,580	2,292	1.45	120	460	3.84	266	6,708	25.2	135	32.8	(*b*)20.9
1949–50 .	1,605	2,430	1.51	134	471	3.52	281	6,849	24.3	135	32.7	(*b*)20.8
1950–51 .	1,377	2,063	1.50	127	412	3.24	272	7,052	25.9	137	26.0	(*b*)20.1
1951–52 .	1,549	2,345	1.51	118	509	4.31	282	5,327	18.9	136	35.3	(*b*)20.0
1952–53 .	1,761	2,765	1.57	135	431	3.18	280	6,967	24.9	137	30.0	(*b*)20.7
1953–54 .	1,935	3,049	1.58	128	548	4.27	340	9,014	26.5	138	31.7	(*b*)21.5
1954–55 .	1,984	2,856	1.44	107	468	4.36	374	10,087	27.0	136	24.0	22.3
1955–56 .	2,241	3,625	1.62	94	402	4.29	373	8,901	23.9	135	22.9	23.0
1956–57 .	1,861	3,043	1.63	101	519	5.14	370	9,272	25.1	132	30.8	20.0
1957–58 .	2,237	2,969	1.33	118	575	4.88	376	9,249	24.6	131	33.9	22.2
1958–59 .	3,018	5,090	1.69	105	575	5.49	370	10,213	27.6	131	32.6	25.6
1959–60 .	2,105	3,177	1.51	108	579	5.34	314	9,002	28.7	130	28.4	26.1
1960–61 .	2,973	5,079	1.71	92	451	4.91	341	9,166	26.9	131	33.8	29.6
1961–62 .	2,274	3,693	1.62	94	526	5.57	387	9,577	24.8	133	41.7	29.6
1962–63 .	2,720	4,717	1.73	114	667	5.86	402	12,736	31.7	134	29.9	32.1
1963–64 .	2,602	4,269	1.64	102	562	5.51	418	12,118	29.0	136	37.5	32.0
1964–65 .	2,793	4,963	1.78	88	508	5.78	470	15,070	32.0	139	38.7	34.7
1965–66 .	2,780	4,179	1.50	96	639	6.63	503	14,155	28.1	140	34.1	34.5
1966–67 .	3,496	6,371	1.82	99	643	6.47	557	16,685	29.9	139	41.5	39.6
1967–68 .	2,800	3,812	1.36	106	658	6.23	553	16,756	30.3	140	44.2	40.2
1968–69 .	3,955	7,330	1.85	113	798	7.04	568	18,413	32.4	143	51.9	46.9

(*a*) Cane cut for crushing. (*b*) Excludes Northern Territory.

PRIMARY INDUSTRIES—*continued*

PASTORAL, DAIRYING, ETC.

Year ended 30 June—	*Livestock(a)*				*Wool (b)(c)*	*Butter*	*Cheese*	*Meat(d)*			
	Horses	*Cattle*	*Sheep*	*Pigs*				*Beef and veal*	*Mutton and lamb*	*Pigmeat*	*Total meat*
	mil.	mil.	mil.	mil.	mil. lb	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons
1902	1.6	8.5	72	0.9	539	(*e*)46	(*e*)5.3	n.a.	n.a.	n.a.	n.a.
1912	2.3	11.8	97	1.1	798	(*e*)95	(*e*)7.1	n.a.	n.a.	n.a.	n.a.
1922	2.4	14.4	86	1.0	723	(*e*)119	(*e*)14.6	339	218	50	608
1932	1.8	12.3	111	1.2	1,007	175	14.0	350	307	70	727
1942	1.6	13.6	125	1.4	1,167	168	30.1	534	372	122	1,027
1943	1.5	14.0	125	1.6	1,147	171	36.1	534	413	109	1,057
1944	1.4	14.2	123	1.7	1,169	156	35.8	501	429	114	1,043
1945	1.4	14.1	105	1.6	1,016	142	34.6	461	395	127	984
1946	1.3	13.9	96	1.4	936	150	41.2	407	291	108	805
1947	1.2	13.4	96	1.3	977	143	42.4	488	303	95	885
1948	1.2	13.8	103	1.3	1,005	162	41.5	562	295	90	947
1949	1.1	14.1	109	1.2	1,057	166	43.2	577	320	94	992
1950	1.1	14.6	113	1.1	1,142	174	44.8	607	358	90	1,055
1951	1.0	15.2	116	1.1	1,118	164	44.3	652	274	85	1,011
1952	0.9	14.9	118	1.0	1,080	135	40.6	582	282	85	949
1953	0.9	15.2	123	1.0	1,281	167	46.6	675	395	83	1,153
1954	0.8	15.6	127	1.2	1,245	160	49.1	704	365	84	1,153
1955	0.8	15.8	131	1.3	1,283	191	45.2	720	388	99	1,207
1956	0.8	16.5	139	1.2	1,417	209	38.7	751	380	94	1,225
1957	0.7	17.3	150	1.3	1,564	193	45.2	815	367	89	1,270
1958	0.7	16.9	149	1.4	1,434	176	36.0	791	421	102	1,315
1959	0.7	16.3	153	1.3	1,591	194	43.5	906	492	102	1,501
1960	0.6	16.5	155	1.4	1,680	198	44.9	752	573	101	1,426
1961	0.6	17.3	153	1.6	1,625	182	47.1	633	574	107	1,315
1962	0.6	18.0	158	1.7	1,699	199	55.7	791	587	120	1,498
1963	0.5	18.5	159	1.4	1,673	202	58.7	914	593	114	1,622
1964	0.5	19.1	165	1.5	1,785	204	58.2	985	586	111	1,683
1965	0.5	18.8	171	1.7	1,784	203	61.6	1,010	585	120	1,715
1966	n.a.	17.9	158	1.7	1,663	206	58.6	931	599	133	1,663
1967	0.5	18.3	164	1.8	1,762	218	68.7	865	587	140	1,591
1968	n.a.	19.2	167	2.1	1,770	193	69.4	890	654	147	1,691
1969	n.a.	20.6	175	2.3	1,948	196	73.6	920	669	160	1,749
1970p	n.a.	22.0	181	2.4	2,043	221	74.9	1,012	762	174	1,948

(*a*) At 31 December of previous year for years to 1942, at 31 March thereafter. (*b*) In terms of greasy. (*c*) 1901–02 and 1911–12 year ended previous December; then until 1946–47, year ended March; 1947–48 onwards, year ended June. (*d*) Carcass weight in terms of fresh meat. (*e*) Year ended previous December.

MINERALS

Year ended 31 December—	*Copper(a)*	*Gold(a)*	*Lead(a)*	*Zinc(a)*	*Black coal*	*Brown coal*
	'000 tons	'000 fine oz	'000 tons	'000 tons	mil. tons	mil. tons
1901	29.4	3,300	n.a.	(*b*)	6.9	(*b*)
1911	45.3	2,484	221.7	238.1	10.5	(*b*)
1921	11.0	758	81.0	139.5	12.8	0.1
1931	13.6	595	148.4	74.2	8.4	2.2
1941	22.4	1,497	291.1	247.2	14.2	4.6
1942	21.1	1,154	261.7	220.7	14.9	4.9
1943	25.5	751	205.5	181.2	14.1	5.1
1944	29.8	657	188.8	173.7	13.7	5.0
1945	26.1	657	162.8	150.3	12.8	5.4
1946	18.8	824	181.4	172.0	13.9	5.7
1947	14.0	938	192.9	182.5	14.8	6.1
1948	12.6	886	210.2	190.7	14.8	6.7
1949	13.7	889	211.8	191.6	14.1	7.4
1950	17.6	870	225.4	197.8	16.5	7.3
1951	18.1	896	212.0	189.2	17.6	7.8
1952	18.9	980	228.3	196.5	19.4	8.1
1953	37.5	1,075	269.3	239.4	18.4	8.3
1954	41.9	1,118	284.9	252.7	19.8	9.3
1955	47.3	1,049	295.9	256.6	19.3	10.1
1956	54.5	1,030	299.5	278.1	19.3	10.6
1957	59.3	1,084	333.8	318.9	19.9	10.7
1958	75.7	1,104	328.3	293.7	20.4	11.6
1959	95.0	1,085	316.3	275.4	20.3	13.0
1960	109.4	1,087	308.2	317.5	22.6	15.0
1961	95.6	1,076	269.7	311.2	24.0	16.3
1962	107.0	1,069	370.1	337.5	24.5	17.1
1963	113.0	1,024	410.3	351.5	24.9	18.5
1964	104.1	964	374.9	344.6	27.4	19.0
1965	90.4	878	362.1	349.2	31.4	20.7
1966	109.5	917	364.9	369.3	33.3	21.8
1967	90.4	805	375.8	400.5	34.7	23.4
1968	107.9	782	382.7	415.7	40.2	23.0
1969p	129.3	699	444.1	499.1	45.4	22.9

FORESTRY

Year ended 30 June—	*Sawn output of Aust. grown timber*
	mil. super feet
1902	(*c*)452
1912	(*c*)605
1922	590
1932	237
1942	914
1943	856
1944	850
1945	842
1946	895
1947	1,050
1948	1,117
1949	1,184
1950	1,223
1951	1,261
1952	1,393
1953	1,340
1954	1,400
1955	1,449
1956	1,451
1957	1,419
1958	1,391
1959	1,460
1960	1,521
1961	1,418
1962	1,352
1963	1,416
1964	1,487
1965	1,533
1966	1,515
1967	1,469
1968	1,482
1969	1,447
1970	1,471

(*a*) Metallic content of minerals produced. (*b*) Less than 0.05. (*c*) Year ended previous December.

SECONDARY INDUSTRIES

FACTORIES(*a*)

				Net value of production(*d*)							Value of	
Year ended 30 June—	*Number*	*Persons employed (b)*	*Salaries and wages paid(c)*	*Chemicals, etc.*	*Industrial metals, etc.*	*Textiles, etc.*	*Clothing*	*Food, etc.*	*Paper, etc.*	*All groups*	*Plant and machinery(e)*	*Land and buildings(e)*
	'000	'000	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1902(*f*)	(*g*)	(*g*)	(*g*)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	58.2	n.a.	n.a.
1912(*f*)	14.5	312	55	2.2	24.1	15.0		23.6	8.5	108.3	63.2	65.0
1922	18.0	379	136	6.4	47.2	38.4		54.4	18.0	225.0	156.2	134.6
1932	21.7	337	112	15.8	45.6	13.8	22.2	57.4	19.2	222.0	243.1	213.2
1942	27.0	725	360	59.6	239.8	42.0	47.2	106.4	34.2	633.0	338.4	312.7
1943	26.4	759	418	58.2	296.4	43.6	46.4	113.7	34.5	704.0	353.9	335.2
1944	27.7	767	434	51.9	314.8	45.5	49.8	118.3	36.7	732.5	362.0	354.3
1945	28.9	751	415	47.0	295.2	44.6	55.3	124.9	39.3	724.6	367.8	365.2
1946	31.2	745	412	45.2	259.4	44.1	59.7	124.0	41.0	704.6	371.1	373.2
1947	34.8	805	474	49.0	292.8	53.9	73.7	138.3	52.2	821.7	379.4	386.9
1948	37.4	849	572	57.3	362.6	64.2	86.7	156.3	59.2	978.6	427.4	422.3
1949	40.1	890	678	67.1	421.7	71.7	104.5	179.6	70.6	1,137.5	493.0	465.5
1950	41.6	917	772	81.3	492.5	85.9	115.4	202.0	86.0	1,323.1	571.2	519.1
1951	43.1	969	983	105.4	654.0	109.2	143.5	236.6	109.5	1,687.7	673.2	605.6
1952	45.8	978	1,224	127.4	826.2	113.2	162.2	282.2	136.4	2,049.7	820.3	719.0
1953	47.7	933	1,270	135.7	842.6	129.7	165.6	328.7	136.6	2,165.7	987.1	828.9
1954	49.6	990	1,410	164.6	936.6	157.1	187.1	355.8	158.6	2,454.1	1,161.4	966.9
1955	51.1	1,031	1,563	196.3	1,065.9	156.8	196.8	373.1	181.1	2,731.0	1,396.6	1,112.0
1956	52.4	1,060	1,707	238.3	1,193.9	163.6	204.9	395.6	198.1	3,001.4	1,595.7	1,307.1
1957	53.2	1,063	1,782	273.8	1,281.7	182.9	211.0	428.9	217.4	3,244.2	1,834.1	1,519.4
1958	54.0	1,074	1,859	291.3	1,389.0	183.0	216.1	449.9	241.4	3,457.4	2,025.5	1,698.1
1959	54.9	1,088	1,941	322.4	1,471.6	191.3	221.5	469.1	263.4	3,685.2	2,216.8	1,895.8
1960	56.7	1,132	2,173	360.3	1,700.4	216.7	237.7	520.1	298.2	4,161.1	2,443.2	2,129.2
1961	57.8	1,145	2,289	366.1	1,795.9	213.6	247.2	542.5	318.6	4,349.8	2,785.6	2,389.1
1962	58.5	1,121	2,287	364.3	1,770.3	211.2	252.4	495.5	326.9	4,394.6	3,052.1	2,809.6
1963	59.1	1,168	2,447	411.4	1,954.7	233.8	266.3	636.9	350.9	4,795.2	3,286.5	3,006.8
1964	59.4	1,210	2,652	449.5	2,174.0	252.5	281.4	700.5	379.7	5,270.0	3,480.7	3,204.7
1965	61.0	1,269	2,994	504.8	2,486.1	279.6	302.3	757.1	426.9	5,896.8	3,766.3	3,505.9
1966	61.7	1,294	3,163	542.7	2,647.8	282.8	319.0	818.3	459.5	6,251.9	4,154.7	3,776.6
1967	62.5	1,309	3,408	627.6	2,912.9	303.1	341.5	892.3	503.3	6,877.0	4,706.8	4,061.2
1968	63.0	1,331	3,666	687.0	3,163.6	315.0	360.1	937.5	549.0	7,430.9	4,962.2	4,303.2

(*a*) Excludes Northern Territory and Australian Capital Territory before 1 July 1964. (*b*) Average over whole year; includes working proprietors. (*c*) Excludes amounts drawn by working proprietors. (*d*) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (*e*) Depreciated or book value at end of year, including estimated value of rented premises and machinery. (*f*) Year ended previous December. (*g*) Owing to variation in classification, effective comparison is not possible.

PRIMARY AND SECONDARY INDUSTRIES

NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES(*a*)

Year ended 30 June—	*Agriculture*	*Pastoral*	*Dairying*	*Poultry*	*Bee-farming*	*Total rural*	*Trapping*	*Forestry*
	$m	$m	$m	$m	$m	$m	$m	$m
1902	47.6	54.4	15.2	4.0	0.2	121.4	n.a.	(*b*)5.6
1912	77.6	105.4	32.2	8.0	0.2	223.4	n.a.	9.6
1922	163.8	150.2	70.6	18.0	0.2	402.8	n.a.	18.2
1932	99.4	86.0	45.2	11.4	0.2	242.2	3.0	7.8
1942	128.0	170.8	68.6	13.0	0.8	381.2	10.0	20.4
1943	161.2	202.0	84.8	21.1	0.7	469.8	7.1	21.6
1944	165.3	216.8	89.7	25.4	0.8	498.1	13.4	23.0
1945	140.7	196.9	92.4	29.6	1.0	460.6	12.4	23.1
1946	219.1	172.6	99.1	30.3	0.8	521.8	17.1	25.1
1947	206.5	260.4	99.7	29.4	1.7	597.7	18.8	29.4
1948	451.6	387.7	121.1	33.5	1.5	995.4	14.6	35.5
1949	328.7	481.7	135.1	40.4	3.0	989.0	15.6	40.6
1950	437.4	674.2	162.2	44.5	1.5	1,319.8	11.4	46.4
1951	416.3	1,409.6	178.7	49.2	1.7	2,055.5	13.3	56.9
1952	493.4	801.0	207.6	63.1	1.5	1,566.6	13.4	75.8
1953	552.8	987.5	271.5	70.4	2.1	1,884.3	11.2	80.1
1954	536.9	983.4	273.9	69.6	2.9	1,866.7	10.1	88.0
1955	487.8	922.9	271.6	59.6	2.8	1,744.7	9.9	93.2
1956	558.9	893.6	309.8	60.4	3.5	1,826.2	12.1	103.6
1957	509.7	1,195.4	281.6	56.8	4.5	2,048.0	12.0	108.3
1958	489.1	894.5	255.2	54.7	3.1	1,696.6	12.1	106.9
1959	657.9	887.2	283.9	54.7	3.2	1,886.9	12.7	108.7
1960	583.9	1,072.4	304.4	60.8	4.1	2,025.7	13.8	105.5
1961	783.7	916.3	284.3	62.0	2.9	2,049.2	13.2	102.4
1962	733.0	962.7	273.0	49.7	3.2	2,021.6	11.8	95.2
1963	830.4	1,078.7	307.4	52.8	3.0	2,272.3	11.4	96.1
1964	917.4	1,340.6	330.2	61.5	5.1	2,654.8	13.4	99.1
1965	975.2	1,221.3	360.7	50.9	4.1	2,612.2	13.1	107.4
1966	857.9	1,188.5	349.9	62.6	3.5	2,462.5	13.8	111.0
1967	1,209.0	1,181.8	371.9	69.9	3.3	2,836.0	11.9	108.9
1968	899.4	1,044.4	371.3	57.1	3.8	2,376.1	10.5	110.0
1969	1,212.7	1,191.3	376.8	71.2	2.6	2,854.6	10.6	111.8

(*a*) Gross value, 1901 to 1921–22. Before 1922, year ended previous December. (*b*) Includes Fisheries.

PRIMARY AND SECONDARY INDUSTRIES—*continued*

NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES(*a*)—*continued*

BUILDING

NEW HOUSES AND FLATS COMPLETED(*b*)

							Building: New houses and flats completed(*b*)	
Year ended 30 June—	*Fisheries*	*Mining and quarrying (c)*	*Total, non-rural*	*Total, primary*	*Factories*	*Grand total*	*Number*	*Value*
	$m	$m	$m	$m	$m	$m	'000	$m
1902	(*d*)	44.0	49.6	171.0	(*c*)58.2	229.2	n.a.	n.a.
1912	2.2	46.6	58.4	281.8	(*c*)108.3	390.1	n.a.	n.a.
1922	2.8	40.0	61.0	463.8	225.0	688.8	n.a.	n.a.
1932	2.8	27.0	40.6	282.8	222.0	504.8	n.a.	n.a.
1942	3.6	66.8	100.8	482.0	633.0	1,115.0	n.a.	n.a.
1943	3.9	61.5	94.1	563.8	704.0	1,267.8	n.a.	n.a.
1944	3.9	55.2	95.5	593.6	732.5	1,326.0	n.a.	n.a.
1945	4.5	53.7	93.6	554.2	724.6	1,278.8	n.a.	n.a.
1946	5.2	52.5	99.9	621.7	704.6	1,326.4	15.4	29.0
1947	6.6	65.0	119.7	717.4	821.7	1,539.2	32.9	72.1
1948	7.0	85.2	142.3	1,137.7	978.6	2,116.3	44.3	108.6
1949	8.3	96.7	161.2	1,150.2	1,137.5	2,287.7	52.7	150.9
1950	8.5	104.7	170.9	1,490.7	1,323.1	2,813.8	57.0	184.7
1951	9.7	142.3	222.2	2,277.6	1,687.7	3,965.4	69.3	255.6
1952	11.5	194.4	295.1	1,861.7	2,049.7	3,911.4	80.1	354.1
1953	13.8	219.3	324.5	2,208.8	2,165.7	4,374.5	80.2	394.5
1954	15.5	209.8	323.4	2,190.1	2,454.1	4,644.2	77.6	398.2
1955	17.5	236.2	356.7	2,101.5	2,731.0	4,832.5	82.1	444.2
1956	17.8	265.0	398.5	2,224.7	3,001.4	5,226.1	78.5	452.5
1957	21.0	280.0	421.3	2,469.2	3,244.2	5,713.5	68.4	419.5
1958	20.8	253.6	393.4	2,090.0	3,457.4	5,547.4	74.6	463.0
1959	22.5	236.7	380.6	2,267.5	3,685.2	5,952.7	84.2	527.3
1960	24.7	252.3	396.2	2,421.9	4,161.1	6,583.0	90.0	571.0
1961	25.6	278.1	419.3	2,468.5	4,349.8	6,818.4	94.5	627.4
1962	28.6	274.5	410.1	2,431.7	4,394.6	6,826.4	86.3	593.2
1963	30.6	291.0	429.2	2,701.5	4,795.2	7,496.7	87.7	610.2
1964	31.7	327.7	471.8	3,126.6	5,270.0	8,396.6	96.7	685.8
1965	38.7	400.1	559.3	3,171.5	5,896.8	9,068.3	112.7	823.0
1966	41.7	443.9	610.4	3,072.9	6,251.9	9,324.8	112.8	869.9
1967	44.6	515.5	681.0	3,517.0	6,877.0	10,394.0	111.9	914.8
1968	54.0	568.1	742.6	3,118.7	7,430.9	10,549.5	120.2	1,022.8
1969	58.4	700.8	881.6	3,736.2	(*e*)	(*e*)	130.7	1,182.1

(*a*) Gross value, 1901 to 1921–22. Before 1922, year ended previous December. (*b*) Series commenced 1945–46. Partly estimated before July 1951, and excludes Northern Territory before July 1954. (*c*) Year ended previous December. (*d*) Included in Forestry. (*e*) Not yet available, *see* page 709.

WAGES AND PRICES

Year ended 31 December—	*Weekly wage rates index adult males(a)*	*Retail price index numbers, six State capital cities combined(b)*	*Year ended 31 December—*	*Weekly wage rates index adult males(a)*	*Retail price index numbers, six State capital cities combined(b)*
1901	n.a.	88	1953	99.2	383
1911	n.a.	100	1954	101.6	386
1921	n.a.	(*c*)168	1955	105.2	394
1931	n.a.	145	1956	110.8	419
1941	38.5	167	1957	112.4	429
1942	41.6	181	1958	114.3	435
1943	42.5	188	1959	122.0	443
1944	42.6	187	1960	125.7	459
1945	42.7	187	1961	129.5	471
1946	45.7	190	1962	129.8	469
1947	49.8	198	1963	133.0	472
1948	55.4	218	1964	140.4	483
1949	59.7	240	1965	144.3	502
1950	71.5	262	1966	152.4	517
1951	85.8	313	1967	159.3	534
1952	96.7	367	1968	173.4	548
			1969	183.4p	564

(*a*) At 31 December. Base: year 1954 = 100, weighted average. Excludes rural industry. (*b*) Base: year 1911 = 100. The index numbers are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index. (*c*) November.

OVERSEAS TRADE

	TOTALS		PRINCIPAL EXPORTS(*a*)					
			Wool		*Wheat*		*Flour*(*b*)	
Year ended 30 June—	*Imports*	*Exports*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	$m f.o.b.	$m f.o.b.	mil. lb(*c*)	$m f.o.b.	'000 tons	$m f.o.b.	'000 short tons	$m f.o.b.
1902(*d*)	76	100	387.5	30	543	5.6	97	1.2
1912(*d*)	122	158	728.1	52	873	12.8	176	2.8
1922	188	256	971.3	96	2,677	57.2	360	11.0
1932	104	216	941.6	74	3,413	38.4	611	7.6
1942	348	338	939.8	112	598	9.2	414	8.4
1943	492	251	628.6	84	604	9.7	342	7.0
1944	489	293	598.6	85	902	16.5	591	13.4
1945	430	311	683.5	92	868	19.5	560	13.5
1946	358	447	930.9	132	334	12.4	519	22.7
1947	419	618	1,454.6	244	326	12.7	765	45.1
1948	679	820	1,132.9	289	1,612	105.6	784	63.6
1949	830	1,085	1,324.9	454	2,224	129.4	855	67.4
1950	1,076	1,227	1,427.4	618	2,101	124.3	771	52.7
1951	1,488	1,964	1,193.7	1,253	2,309	148.3	883	65.8
1952	2,107	1,350	1,041.3	636	1,685	110.6	789	66.0
1953	1,028	1,743	1,207.7	788	1,594	103.9	870	74.8
1954	1,363	1,657	1,206.0	805	966	61.9	761	59.4
1955	1,687	1,548	1,182.8	693	1,691	90.4	656	40.6
1956	1,642	1,564	1,295.8	653	1,903	92.9	667	39.4
1957	1,438	1,986	1,450.8	930	2,440	120.1	750	43.3
1958	1,584	1,636	1,329.7	720	1,060	57.0	460	28.7
1959	1,593	1,623	1,448.7	578	1,463	76.8	447	26.7
1960	1,854	1,875	1,592.6	742	2,444	123.4	536	30.3
1961	2,175	1,938	1,557.7	649	4,098	204.9	658	38.0
1962	1,769	2,155	1,628.7	720	5,442	284.9	579	34.8
1963	2,163	2,152	1,594.3	733	4,071	216.9	524	31.4
1964	2,373	2,782	1,669.6	926	6,796	362.0	685	42.2
1965	2,905	2,651	1,605.3	781	5,624	297.2	572	37.3
1966	2,939	2,721	1,601.5	757	5,075	264.1	390	24.8
1967	3,045	3,024	1,632.1	840	6,403	361.2	357	23.1
1968	3,264	3,045	1,683.0	739	6,396	342.7	381	23.5
1969	3,469	3,374	1,760.6	827	4,814	258.3	350	21.8
1970	3,885	4,139	1,900.9	803	6,809	339.4	326	21.0

(*a*) Australian produce. (*b*) Flour, plain white. (*c*) Greasy equivalent (includes greasy wool, slipe, wool scoured and carbonised, wool exported on skins). (*d*) Year ended previous December.

PRINCIPAL EXPORTS(*a*)—*continued*

								Ores and concentrates	
Year ended 30 June—	*Butter*(*b*)		*Hides and skins*	*Meats*(*c*)	*Fruit*(*d*)	*Sugar*	*Gold*	*Iron*	*Other*(*e*)
	Quantity	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*
	mil. lb	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.
1902(*f*)	35	2.8	2.6	5.2	0.4	(*g*)	28.6	..	(*g*)
1912(*f*)	102	9.2	6.4	8.6	1.0	(*g*)	24.0	..	8.1
1922	127	16.0	6.2	11.0	6.0	(*g*)	7.0	..	1.3
1932	202	20.6	4.6	12.8	9.6	5.0	23.8	..	0.3
1942	130	16.2	12.0	28.2	10.6	5.2	18.4	..	1.9
1943	130	17.1	7.4	21.2	7.0	2.0	(*g*)	..	2.5
1944	105	13.8	13.5	26.1	10.2	3.0	(*g*)	..	3.1
1945	94	16.5	13.2	28.2	11.0	3.7	(*g*)	..	3.4
1946	139	24.8	23.7	28.0	12.2	6.1	52.8	..	3.2
1947	135	25.4	30.9	42.3	19.7	5.4	(*g*)	..	5.6
1948	187	41.8	24.7	45.1	25.5	6.1	7.7	..	9.2
1949	185	48.3	24.4	59.5	30.3	26.4	(*g*)	..	11.8
1950	182	50.8	30.3	70.0	30.2	28.3	(*g*)	..	12.3
1951	123	37.8	54.4	60.8	37.6	29.6	(*g*)	..	21.4
1952	28	10.2	34.3	71.0	44.4	13.8	14.0	..	39.9
1953	112	40.9	40.3	131.6	61.2	43.3	40.8	..	38.9
1954	90	33.1	38.9	113.8	67.9	63.2	27.5	..	25.6
1955	142	50.0	39.4	127.0	68.0	62.3	27.4	..	28.1
1956	186	58.7	41.8	119.1	67.4	49.4	16.6	..	38.2
1957	173	52.9	48.5	100.1	52.9	57.6	28.5	..	51.4
1958	116	32.3	50.8	110.5	72.0	70.0	12.7	..	42.4
1959	176	50.9	47.1	194.4	73.1	64.3	6.6	..	32.7
1960	175	58.4	63.6	177.0	64.3	53.3	20.4	..	43.5
1961	141	40.9	54.4	144.6	61.1	70.1	79.9	..	54.4
1962	178	48.5	64.3	179.4	73.5	67.8	18.0	..	47.7
1963	179	49.3	73.7	225.7	73.3	91.0	12.9	..	43.5
1964	202	57.0	91.7	243.7	92.3	156.5	14.3	..	54.4
1965	214	67.4	80.1	286.2	86.1	112.7	18.4	0.8	76.6
1966	186	57.7	89.2	287.7	107.3	93.9	24.4	2.7	87.5
1967	230	64.8	85.5	285.5	94.5	99.5	18.1	46.0	101.0
1968	172	47.0	61.9	284.6	104.6	97.6	15.6	103.0	123.1
1969	166	40.5	75.0	290.9	92.4	122.2	22.7	179.5	143.3
1970	218	52.5	86.9	427.9	88.4	116.1	29.5	276.1	204.8

(*a*) Australian produce. (*b*) Includes concentrates and ghee. (*c*) Includes sausage casings, natural. (*d*) Includes juices and fruit preparations. (*e*) Excludes iron ore and iron ore concentrates. (*f*) Year ended previous December. (*g*) Less than 0.05.

OVERSEAS TRADE—*continued*

PRINCIPAL IMPORTS

Year ended 30 June—	*Vegetable foodstuffs, etc.*	*Apparel, etc.*	*Oil, etc.*	*Metals, etc.*	*Rubber*	*Paper, etc.*
	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.
1902(*a*)	7.2	21.8	2.4	15.6	1.0	3.2
1912(*a*)	7.4	32.4	3.2	28.0	2.8	5.2
1922	8.0	62.0	9.4	45.6	3.4	8.8
1932	5.2	30.8	11.0	14.8	1.6	8.8
1942	12.3	65.3	32.4	143.6	6.0	8.7
1943	14.5	59.0	35.0	203.1	4.4	4.7
1944	10.5	77.2	47.5	215.4	6.0	11.8
1945	13.0	90.7	41.3	150.4	3.5	14.8
1946	17.6	63.4	41.5	92.5	5.9	16.3
1947	18.9	97.8	41.3	105.2	10.9	26.8
1948	33.0	192.1	69.5	170.8	9.8	46.8
1949	27.9	218.4	86.4	256.1	12.6	42.1
1950	41.4	199.5	104.8	454.7	21.4	37.8
1951	49.6	277.3	139.7	479.7	59.3	58.0
1952	50.1	407.1	174.9	786.8	68.0	137.5
1953	37.0	96.5	148.5	452.0	17.4	44.9
1954	51.4	227.6	167.0	504.4	23.7	68.2
1955	71.9	253.5	193.8	638.3	34.1	92.8
1956	44.1	222.7	199.3	644.1	44.1	87.2
1957	51.6	182.7	191.1	530.1	33.4	83.5
1958	51.5	217.0	203.4	564.4	33.3	89.8
1959	55.3	193.9	209.0	585.6	33.6	96.1
1960	54.9	222.1	213.5	710.1	48.5	103.8
1961	60.5	264.9	223.3	871.3	47.3	133.8
1962	56.3	208.4	219.8	630.3	35.5	109.6
1963	55.5	233.3	246.3	850.0	46.7	133.5
1964	61.6	234.0	251.5	947.1	51.2	141.7
1965	66.2	272.1	260.1	1,275.2	66.3	156.5

Year ended 30 June—	*Food and live animals*	*Beverages and tobacco*	*Crude materials, inedible, except fuels*	*Mineral fuels, lubricants and related materials*	*Animal and vegetable oils and fats*	*Chemicals*	*Manufactured goods classified chiefly by materials*	*Machinery and transport equipment*	*Miscellaneous manufactured articles*	*Commodities and transactions of merchandise trade not elsewhere classified*
	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.	$m f.o.b.
1966	110	37	197	252	15	266	590	1,121	220	89
1967	118	38	206	247	15	297	586	1,144	243	110
1968	117	36	224	241	14	309	644	1,250	270	110
1969	128	44	228	252	13	328	688	1,328	298	116
1970	140	48	247	255	16	366	753	1,528	350	124

(*a*) Year ended previous December.

TRANSPORT AND COMMUNICATION

SHIPPING

Year ended 30 June—	Overseas vessels				Overseas cargo		Interstate vessels—entrances		Interstate cargo shipped
	Entrances		Clearances						
	No.	Net tonnage	No.	Net tonnage	Dis-charged	Shipped	No.	Net tonnage	
		mil. tons		mil. tons	mil. tons (a)	mil. tons (a)		mil. tons	mil. tons (a)
1902 . .	(b)	(b)	(b)	(b)	n.a.	n.a.	n.a.	n.a.	n.a.
1912 . .	(c)2,081	(c)5.0	(c)2,093	(c)5.0	n.a.	n.a.	(c)5,000	(c)6.8	n.a.
1922 . .	1,567	4.6	1,544	4.5	2.4	5.8	4,897	6.4	5.5
1932 . .	1,519	5.7	1,538	5.7	3.0	6.7	3,958	5.5	4.0
1942 . .	1,276	5.2	1,268	5.6	5.5	4.2	4,860	6.6	10.0
1943 . .	956	3.8	1,069	4.3	5.1	3.6	3,596	4.6	9.4
1944 . .	1,094	4.5	1,286	5.2	5.9	5.1	3,731	5.2	9.2
1945 . .	1,059	4.5	1,088	4.6	6.1	4.9	3,543	5.1	9.3
1946 . .	1,146	5.3	1,225	5.4	6.2	3.9	3,108	4.4	7.4
1947 . .	1,202	5.2	1,287	5.2	5.6	4.5	3,084	4.7	8.5
1948 . .	1,470	6.1	1,479	5.8	6.9	5.8	2,943	4.2	8.4
1949 . .	1,706	7.5	1,780	7.5	8.4	6.8	3,091	4.7	7.4
1950 . .	1,942	8.7	1,965	8.7	11.3	6.4	3,228	5.3	7.6
1951 . .	1,911	8.6	1,992	8.7	13.1	6.7	3,301	5.8	8.0
1952 . .	2,038	9.0	2,098	9.3	14.4	5.7	3,750	7.9	9.0
1953 . .	1,988	8.7	2,053	8.9	9.7	7.5	4,555	9.2	9.7
1954 . .	2,054	8.9	2,073	8.9	11.3	7.1	4,759	9.6	10.6
1955 . .	2,245	9.9	2,260	10.1	14.4	7.5	4,644	9.4	11.7
1956 . .	2,425	11.2	2,457	11.1	15.9	8.2	4,626	9.5	12.9
1957 . .	2,628	11.8	2,662	11.8	15.3	10.1	4,805	9.5	13.2
1958 . .	2,656	12.4	2,598	12.1	16.6	8.9	5,127	9.8	13.8
1959 . .	2,706	12.9	2,757	13.1	16.9	10.1	5,012	9.5	13.4
1960 . .	2,976	14.5	2,969	14.4	18.7	11.6	5,004	9.5	14.3
1961 . .	3,382	17.3	3,396	17.0	21.1	15.3	4,860	9.6	15.2
1962 . .	3,599	18.9	3,611	18.8	20.3	18.7	5,032	9.8	14.8
1963 . .	3,411	19.0	3,351	18.6	22.8	17.0	4,845	9.7	15.4
1964 . .	3,714	20.7	3,763	20.9	24.7	21.6	5,067	10.1	16.8
1965 . .	3,813	21.7	3,788	21.7	27.7	22.4	5,263	13.2	17.8
1966 . .	3,929	23.0	4,029	23.3	28.3	23.8	5,480	15.1	17.7
1967 . .	3,977	27.4	4,017	27.6	31.3	34.6	4,937	15.3	17.4
1968 . .	3,972	30.1	4,013	30.3	32.3	43.4	5,159	15.7	19.0
1969 . .	4,390	36.4	4,360	36.2	34.5	57.0	5,269	15.8	20.4

(a) Tons weight plus tons measurement. (b) Separate details not available. Total entrances and clearances for year ended December 1901, 4,028 vessels, 6.5 million tons. (c) Year ended previous December.

GOVERNMENT RAILWAYS(a)

REGULAR INTERNAL AIR SERVICES

Year ended 30 June—	Route-miles (b)	Train mileage	Pas-senger journeys	Freight–tons carried	Freight–net ton-miles	Miles flown	Passengers		Freight		Mail	
							Embark-ations	Pas-senger miles	Tons up-lifted	Ton-miles	Tons up-lifted	To mil
	'000	mil.	mil.	mil.	mil.	mil.	'000	mil.	'000(c)	mil.(d)	'000(c)	mil.(
1902 .	12.8	38.2	115	15.5	n.a.	..	..	..	..	..	..	.
1912 .	16.8	55.2	228	25.5	n.a.	..	..	..	..	..	..	.
1922 .	23.4	56.1	335	31.5	n.a.	..	..	..	..	..	..	.
1932 .	27.0	63.8	303	26.1	n.a.	0.9	6	3	0.04	n.a.	0.02	n.
1942 .	27.2	88.5	475	38.9	n.a.	7.8	151	76	1.3	1.0	n.a.	0.
1943 .	27.2	96.1	518	42.5	n.a.	7.0	135	64	1.1	0.9	2.3	1.
1944 .	27.2	91.8	533	42.0	n.a.	9.7	216	100	1.5	0.9	3.6	2.
1945 .	27.2	90.2	535	40.8	n.a.	12.6	320	141	2.6	1.3	4.2	2.
1946 .	27.2	86.7	546	36.7	n.a.	17.7	509	225	5.6	2.6	2.4	1.
1947 .	27.2	85.5	503	37 8	5,605	23.0	850	366	13.7	6.7	1.3	0.
1948 .	27.1	87.7	511	40.0	5,934	32.4	1,208	503	28.9	13.4	1.4	0.
1949 .	27.0	92.3	507	41.4	6,212	35.2	1,409	566	37.4	17.1	1.8	0.
1950 .	27.0	93.4	505	40.6	6,203	36.5	1,500	590	49.4	22.3	2.9	1.
1951 .	27.0	88.7	476	40.9	6,277	40.7	1,685	669	59.4	27.1	3.2	1,
1952 .	26.8	93.4	501	44.3	6,755	41.8	1,829	722	57.5	26.7	2.7	1.
1953 .	26.8	88.7	498	44.0	6,574	39.1	1,706	667	57.6	27.2	2.3	1
1954 .	26.6	93.5	511	46.8	6,953	41.0	1,772	702	69.5	32.7	2.3	1.
1955 .	26.6	94.8	517	47.7	7,295	43.5	1,918	766	78.7	37.0	2.3	1.
1956 .	26.5	96.2	515	46.8	7,274	43.7	2,020	828	84.4	38.9	2.5	1.
1957 .	26.5	95.1	499	47.5	7,463	42.1	2,125	891	75.1	36.3	2.5	1.
1958 .	26.4	90.3	494	45.3	6,808	40.5	2,123	899	70.0	33.0	2.6	1.
1959 .	26.3	91.3	485	48.0	7,320	40.3	2,235	944	62.8	28.8	2.7	1
1960 .	26.2	92.7	479	51.2	8,006	42.3	2,660	1,133	65.4	29.2	4.8	2.
1961 .	26.1	93.0	463	55.4	8,788	43.2	2,639	1,110	63.0	28.2	6.0	3.
1962 .	25.6	92.6	461	55.6	8,823	41.2	2,666	1,119	57.2	26.1	6.3	3.
1963 .	25.5	92.9	465	55.9	9,253	43.7	2,833	1,221	59.4	28.3	6.5	3.
1964 .	25.2	96.5	471	61.7	10,501	49.0	3,257	1,408	63.2	30.5	7.1	3.
1965 .	25.0	96.6	464	64.8	11,145	52.3	3,764	1,639	70.0	33.9	7.7	4.
1966 .	25.0	94.3	460	64.3	11,012	55.0	4,158	1,831	76.1	37.6	8.6	4.
1967 .	25.1	93.7	455	68.5	11,517	56.8	4,425	1,972	82.1	40.1	9.6	5.
1968 .	25.1	94.5	453	71.1	12,264	56.7	4,668	2,125	85.1	42.3	9.4	5.
1969 .	25.1	93.8	447	75.7	13,126	60.3	5,185	2,402	89.9	45.5	9.9	5.

(a) Particulars of train-mileages, passenger-journeys, freight tons carried, and freight net ton-miles refer only to operations for whic revenue is received. (b) At end of period. (c) Short tons (2,000 lb). (d) In terms of short tons.

TRANSPORT AND COMMUNICATION—*continued*

	ROAD TRANSPORT					COMMUNICATION					
	Tramway, trolley-bus and omnibus services(a)	Motor vehicles on the register(b)					Telephones			Broadcasting and television licences in force(b)	
Year ended 30 June—	Passenger journeys	Motor cars and station wagons	Utilities, panel vans, etc., trucks and omnibuses	Motor cycles	Total motor vehicles (including motor cycles)	Postal matter dealt with(c)	Instruments in service (b)	Services in operation (b)(d)	Telegrams (e)	Broadcast listeners'	Television viewers'
	mil.	'000	'000	'000	'000	mil. articles	'000	'000	mil.	'000	'000
1902	n.a.	..	..	..	..	(*f*)384	(*f*)36	(*f*)28	(*f*)8.2	..	..
1912	360	n.a.	n.a.	n.a.	n.a.	(*f*)698	(*f*)118	(*f*)96	(*f*)13.9	..	..
1922	569	102			102	778	259	196	16.8	(*g*)1	..
1932	589	420	96	72	588	887	485	364	13.9	369	..
1942	(*h*)1,067	451	250	49	751	1,124	739	531	26.1	1,320	..
1943	1,189	472	255	48	776	1,082	767	540	32.5	1,370	..
1944	1,281	494	274	53	820	1,114	800	557	35.8	1,395	..
1945	1,290	506	291	57	854	1,155	828	578	37.6	1,415	..
1946	1,275	523	333	73	929	1,166	856	608	38.0	1,437	..
1947	1,216	548	378	87	1,013	1,235	905	648	35.7	1,678	..
1948	1,199	589	419	100	1,108	1,307	963	688	36.8	1,704	..
1949	1,185	651	457	118	1,225	1,375	1,028	734	37.9	1,763	..
1950	1,076	764	506	134	1,404	1,466	1,110	795	38.0	1,841	..
1951	1,092	879	555	146	1,580	1,526	1,209	870	37.2	1,885	..
1952	1,019	1,028	588	155	1,770	1,482	1,301	939	29.8	1,961	..
1953	988	1,105	587	148	1,840	1,506	1,383	1,001	25.9	1,986	..
1954	981	1,196	611	141	1,947	1,604	1,476	1,070	25.1	2,042	..
1955	966	1,342	654	133	2,130	1,653	1,587	1,153	25.5	2,035	..
1956	927	1,430	693	123	2,246	1,741	1,704	1,240	25.4	2,089	..
1957	833	1,537	710	118	2,366	1,784	1,814	1,318	24.0	2,107	74
1958	803	1,661	731	114	2,506	1,895	1,937	1,407	22.9	2,138	291
1959	778	1,784	755	110	2,649	1,951	2,056	1,491	22.5	2,264	578
1960	758	1,938	784	102	2,824	1,953	2,164	1,562	22.2	2,283	955
1961	726	2,070	800	93	2,963	2,048	2,266	1,631	21.8	2,256	1,217
1962	718	2,201	815	85	3,101	2,101	2,382	1,719	21.6	2,220	1,424
1963	712	2,381	833	78	3,292	2,202	2,523	1,812	21.8	2,240	1,655
1964	703	2,595	851	71	3,516	2,342	2,670	1,919	23.4	2,302	1,882
1965	685	2,811	865	68	3,744	2,443	2,811	2,010	24.3	2,358	2,045
1966	653	2,975	878	67	3,920	2,556	2,978	2,120	25.0	2,526	2,226
1967	621	3,140	893	73	4,107	2,683	3,178	2,235	25.6	2,538	2,405
1968	609	3,349	907	88	4,345	2,648	3,392	2,359	(*i*)23.4	2,580	2,519
1969	590	3,551	930	105	4,586	2,692	3,599	2,511	(*i*)23.3	2,630	2,649

(*a*) Government and municipal. (*b*) At end of period. (*c*) Letters, postcards, letter-cards, newspapers, packets, parcels, and registered articles. (*d*) All single lines plus one half the number of duplex lines. Until the introduction of duplex services in December 1948, statistics of exchange lines and telephone services were identical. (*e*) Telegrams despatched to places within Australia and despatched to or received from overseas. (*f*) Year ended previous December. (*g*) Year 1923–24. First year licences issued. (*h*) Tramway passenger journeys only before 1942. (*i*) Excludes telegrams received from overseas. These particulars are no longer available.

NATIONAL ACCOUNTS

GROSS NATIONAL PRODUCT — GROSS FIXED CAPITAL EXPENDITUR

	GROSS NATIONAL PRODUCT						GROSS FIXED CAPITAL EXPENDITUR				
	At current prices			*At constant prices(a)*			*At current prices*		*At constant prices*		
Year	(*b*)	(*c*)	(*d*)	*1953–54 prices(e)*	*1959–60 prices(d)*	*1966–67 prices(f)*	(*g*)	(*f*)	*1953–54 prices(e)*	*1959–60 prices(d)*	*1966–6 prices(*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$
1900–01	419	..	..	..	..	..	56	..	..	..	..
1901–02	444	..	..	..	..	..	74	..	..	..	..
1902–03	428	..	..	..	..	..	65	..	..	..	..
1903–04	449	..	..	..	..	..	51	..	..	..	..
1904–05	445	..	..	..	..	..	50	..	..	..	..
1905–06	478	..	..	..	..	..	53	..	..	..	..
1906–07	538	..	..	..	..	..	72	..	..	..	..
1907–08	536	..	..	..	..	..	75	..	..	..	..
1908–09	583	..	..	..	..	..	76	..	..	..	..
1909–10	624	..	..	..	..	..	80	..	..	..	..
1910–11	683	..	..	..	..	..	98	..	..	..	..
1911–12	733	..	..	..	..	..	125	..	..	..	..
1912–13	802	..	..	..	..	..	146	..	..	..	..
1913–14	865	..	..	..	..	..	154	..	..	..	..
1914–15	833	..	..	..	..	..	132	..	..	..	..
1915–16	909	..	..	..	..	..	125	..	..	..	..
1916–17	943	..	..	..	..	..	123	..	..	..	..
1917–18	963	..	..	..	..	..	112	..	..	..	..
1918–19	1,089	..	..	..	..	..	146	..	..	..	..
1919–20	1,257	..	..	..	..	..	209	..	..	..	..
1920–21	1,426	..	..	..	..	..	245	..	..	..	..
1921–22	1,378	..	..	..	..	..	261	..	..	..	..
1922–23	1,510	..	..	..	..	..	273	..	..	..	..
1923–24	1,569	..	..	..	..	..	290	..	..	..	..
1924–25	1,722	..	..	..	..	..	303	..	..	..	..
1925–26	1,659	..	..	..	..	..	308	..	..	..	..
1926–27	1,729	..	..	..	..	..	328	..	..	..	..
1927–28	1,739	..	..	..	..	..	329	..	..	..	..
1928–29	1,711	..	..	..	..	..	309	..	..	..	..
1929–30	1,566	..	..	..	..	..	240	..	..	..	..
1930–31	1,288	..	..	..	..	..	166	..	..	..	..
1931–32	1,209	..	..	..	..	..	119	..	..	..	..
1932–33	1,264	..	..	..	..	..	134	..	..	..	..
1933–34	1,356	..	..	..	..	..	156	..	..	..	..
1934–35	1,422	..	..	..	..	..	203	..	..	..	..
1935–36	1,574	..	..	..	..	..	226	..	..	..	..
1936–37	1,717	..	..	..	..	..	253	..	..	..	..
1937–38	1,857	..	..	..	..	..	306	..	..	..	..
1938–39	1,847	1,860	(1,800)	..	..	..	298	(316)	..	..	..
1939–40	..	2,040	..	..	..	..	..	..	..	..	..
1940–41	..	2,174	..	..	..	..	..	..	..	..	..
1941–42	..	2,548	..	..	..	..	..	..	..	..	..
1942–43	..	2,936	..	..	..	..	..	..	..	..	..
1943–44	..	2,986	..	..	..	..	..	..	..	..	..
1944–45	..	2,906	..	..	..	..	..	..	..	..	..
1945–46	..	3,006	..	..	..	..	..	..	..	..	..
1946–47	..	3,234	..	..	..	..	..	..	..	..	..
1947–48	..	3,988	..	..	..	..	..	..	..	..	..
1948–49	..	4,524	4,479	7,368	..	..	..	788	1,346	..	..
1949–50	..	..	5,367	7,916	..	..	..	1,054	1,640	..	..
1950–51	..	..	7,193	8,376	..	..	..	1,509	2,033	..	..
1951–52	..	..	7,706	8,597	..	..	..	1,939	2,195	..	..
1952–53	..	..	8,372	8,522	..	..	..	1,927	1,972	..	..
1953–54	..	..	9,047	9,063	10,526	..	..	2,137	2,137	2,521	..
1954–55	..	..	9,766	9,552	11,154	..	..	2,352	2,292	2,698	..
1955–56	..	..	10,600	10,083	11,706	..	..	2,557	2,370	2,803	..
1956–57	..	..	11,490	10,341	11,938	..	..	2,669	2,380	2,821	..
1957–58	..	..	11,628	10,478	12,182	..	..	2,857	2,499	2,953	..
1958–59	..	..	12,522	11,388	13,044	..	..	3,022	2,611	3,087	..
1959–60	..	..	13,877	11,833	13,804	16,555	..	3,398	2,875	3,395	3,9
1960–61	..	..	14,663	..	14,207	17,047	..	3 664	..	3,550	4,1
1961–62	..	..	14.985	..	14,331	17,232	..	3,720	..	3,544	4,17
1962–63	..	..	16,226	..	15,319	18,413	..	4,011	..	3,816	4,47
1963–64	..	..	18,012	..	16,446	19,653	..	4,505	..	4,217	4,92
1964–65	..	..	19,802	..	17,603	21,020	..	5,244	..	4,766	5,56
1965–66	..	..	20,777	..	17,773	21,367	..	5,685	..	5,021	5,87
1966–67	..	..	22,763	..	18,945	22,670	..	5,959	..	5,106	5,9
1967–68	..	..	24,299	..	..	23,544	..	6,497	..	..	6,32
1968–69	..	..	27,279	..	..	25,574	..	7,208	..	..	6,76
1969–70 p	..	..	30,162	..	..	26,991	..	7,847	..	..	7,06

(*a*) These series relate to gross national product after stock valuation adjustment, at constant prices (*see Australian National Account op. cit. pp 16 and 101*). (*b*) N. G. Butlin, *Australian Domestic Product, Investment and Foreign Borrowing* 1861—1938–39, Cambridg University Press, Cambridge, 1962. Gross domestic product excluding livestock accumulation, approximates conceptually gross nation product as defined in the Australian National Accounts. (*c*) Published by the Commonwealth Statistician. Figures prior to 1948– are from *National Income and Expenditure* 1955–56 and are not strictly comparable with subsequent figures because of a number of definition changes and statistical revisions; *see* pages 18–19, 117–20, *Australian National Accounts* 1948–49 *to* 1961–62, Commonwealth Bureau Census and Statistics. (*d*) *Australian National Accounts* 1967–68 and 1968–69, Commonwealth Bureau of Census and Statistics, an for the last five years, the Budget Paper *National Income and Expenditure* 1969–70. The figures of $1,800m for gross national product an $316m for gross fixed capital expenditure in 1938–39 are based on a reconstruction of earlier estimates, and are approximately consiste with the present Australian National Account series. Mr B. D. Haig ('1938–39 National Income Estimates', *Australian Economic Histo Review*, Vol. vii, No. 2, September 1967) has adjusted components of gross national expenditure and imports and exports for changes prices. If the price indexes implied by Mr Haig's estimates are used to revalue at 1938–39 prices gross national product and gross fix capital expenditure for 1948–49, values of $2,384m and $434m, respectively, are obtained. (*e*) *Australian National Accounts* 1967–6 (*f*) *Gross National Expenditure at Current and Constant Prices*, 1959–60 *to* 1969–70 and *Australian National Accounts* 1967–68 and 1968– for earlier years. (*g*) N. G. Butlin, *op. cit.* For a variety of reasons, Professor Butlin's gross domestic capital formation figures given he differ conceptually from those for gross fixed capital expenditure in the Australian National Accounts.

PRIVATE FINANCE

	NOTE ISSUE	BANKING			
		Cheque-paying banks			*Savings banks*
Year ended 30 June—	*Common-wealth note issue(a)*	*Advances (b)*	*Deposits (b)*	*Bank clearings (c)*	*Depositors balances(d)*
	$m	$m	$m	$m	$m
1902	. .	188	186	13	62
1912	16	238	300	25	118
1922	107	364	578	65	308
1932	103	522	638	55	396
1942	205	648	965	142	549
1943	280	583	1,233	156	716
1944	382	542	1,389	158	943
1945	373	503	1,525	149	1,134
				Debits to customers' accounts(c)	
1946	400	519	1,397	(*e*)296	1,327
1947	405	672	1,445	349	1,320
1948	393	824	1,598	451	1,363
1949	426	966	1,830	514	1,428
1950	463	1,148	2,264	655	1,524
1951	551	1,357	2,826	897	1,675
1952	605	1,656	2,564	866	1,784
1953	657	1,450	2,856	877	1,895
1954	688	1,690	3,061	1,100	2,020
1955	726	1,982	3,089	1,127	2,145
1956	745	1,945	2,992	1,123	2,282
1957	763	1,897	3,231	1,250	2,455
1958	775	2,060	3,240	1,282	2,594
1959	790	2,007	3,362	1,432	2,783
1960	843	2,211	3,611	1,737	3,045
1961	839	2,238	3,600	1,654	3,155
1962	856	2,287	3,837	1,848	3,470
1963	869	2,465	4,064	2,028	3,940
1964	870	2,610	4,649	2,318	4,476
1965	862	2,955	5,038	2,653	4,887
1966	849	3,183	5,308	2,672	5,254
1967	938	3,548	5,614	2,978	5,765
1968	1,006	4,020	6,087	3,588	6,222
1969	1,107	4,384	6,706	4,055	6,707
1970	1,216	4,903	7,099	4,891	7,105

(*a*) Last Wednesday in June. (*b*) June quarter up to and including 1945; month of June from 1946 onwards. (*c*) Weekly average, June month. (*d*) End of June. (*e*) Bank clearings, $179m.

LIFE INSURANCE(*a*)

	Ordinary(c)		*Industrial*		*Total*	
Year ended 31 December(b)—	*Policies*	*Sum assured*	*Policies*	*Sum assured*	*Policies*	*Sum assured*
	'000	$m	'000	$m	'000	$m
1901	414	216	236	10	650	226
1911	484	218	467	20	951	238
1921	730	362	973	60	1,703	422
1931	871	570	1,550	134	2,421	704
1941	1,340	926	2,780	254	4,120	1,180
1942	1,384	956	2,899	268	4,283	1,223
1943	1,433	998	3,026	285	4,459	1,284
1944	1,506	1,071	3,158	306	4,664	1,376
1945	1,587	1,157	3,279	327	4,866	1,484
1946	1,730	1,310	3,429	357	5,159	1,667
1947	1,902	1,481	3,541	386	5,442	1,867
1948	2,071	1,669	3,643	418	5,714	2,087
1949	2,224	1,862	3,725	448	5,949	2,310
1950	2,377	2,094	3,793	477	6,170	2.571
1951	2,554	2,424	3,843	507	6,396	2,931
1952	2,731	2,757	3,873	541	6,604	3.298
1953	2,893	3,105	3,881	571	6,774	3,677
1954	3,033	3,482	3,827	594	6,860	4,076
1955	3,184	3,942	3,766	615	6,949	4,556
1956	3,319	4,447	3,702	631	7,021	5,077
1957	3,446	5,067	3,615	645	7,061	5,712
1958	3,577	5,747	3,531	657	7,108	6,404
1959	3,710	6,571	3,443	665	7,154	7,236
1960	4,110	7,690	3,340	686	7,450	8,376
1961	4,201	8,743	3,199	707	7,400	9,450
1962	4,291	9,854	3,076	743	7,366	10,597
1963	4,401	11,010	2,953	777	7,354	11,787
1964	4,539	12,481	2,851	823	7,390	13,304
1965	4,705	14,057	2,755	871	7,460	14,928
1966	4,873	15,750	2,644	918	7,517	16,668
1967	5,051	17,762	2,603	981	7,654	18,743
1968	5,251	20,357	2,561	1,041	7,812	21,397
1969(*d*)	5,436	23,460	2,526	1,116	7,961	24,576

(*a*) Existing business in Australia. (*b*) Companies' financial years which ended during the year. (*c*) Includes superannuation business. (*d*) From 1 July includes business of the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office, but excludes Papua and New Guinea business.

PUBLIC FINANCE

Year ended 30 June—	COMMONWEALTH Consolidated revenue fund				STATE Consolidated revenue fund				GOVERNMENT SECURITIES ON ISSUE				
	Revenue	Expenditure	Net loan fund expenditure (b)	Taxation collections	Revenue	Expenditure	Net loan expenditure (b)	Taxation collections	Commonwealth	State	Total	Overseas	Au tra
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$
1902	23	8	..	18	56	58	19	5	..	429	429	n.a.	n
1912	41	29	2	32	83	82	33	11	12	557	569	388	1
1922	128	128	10	99	170	175	67	36	708	1,039	1,747	823	9
1932	143	143	8	108	199	242	12	65	692	1,800	2,492	1,320	1,1
1942	420	420	426	359	305	299	17	115	1,340	2,038	3,378	1,312	2,0
1943	589	589	806	514	337	333	8	53	2,117	2,013	4,131	1,308	2,8
1944	684	684	755	607	338	334	6	43	2,850	1,994	4,844	1,262	3,5
1945	754	754	532	676	338	334	12	44	3,355	2,008	5,364	1,231	4,1
1946	782	782	319	706	332	331	14	50	3,670	2,005	5,675	1,142	4,5
1947	863	863	98	771	346	350	48	57	3,733	2,044	5,777	1,130	4,6
1948	932	932	26	845	394	398	75	64	3,702	2,119	5,821	1,117	4,7
1949	1,109	1,109	−9	982	452	456	102	73	3,685	2,202	5,887	1,088	4,7
1950	1,161	1,161	85	1,038	521	525	147	83	3,731	2,367	6,098	1,099	4,9
1951	1,684	1,684	101	1,554	613	613	257	103	3,777	2,619	6,396	1,067	5,3
1952	2,034	2,034	63	1,868	777	783	395	126	3,838	2,993	6,830	1,113	5,7
1953	2,080	2,080	71	1,791	876	877	322	142	3,893	3,288	7,181	1,142	6,0
1954	2,046	2,046	83	1,801	941	935	335	161	3,964	3,573	7,537	1,165	6,3
1955	2,135	2,135	66	1,875	991	998	321	179	3,998	3,846	7,844	1,216	6,6
1956	2,277	2,277	88	2,008	1,052	1,082	312	196	4,031	4,121	8,151	1,269	6,8
1957	2,624	2,264	88	2,197	1,154	1,168	317	229	3,957	4,396	8,353	1,216	7,1
1958	2,648	2,648	90	2,323	1,210	1,224	314	256	3,670	4,686	8,356	1,248	7,1
1959	2,592	2,592	132	2,267	1,280	1,295	338	276	3,512	4,988	8,499	1,319	7,1
1960	2,877	2,877	119	2,500	1,399	1,404	357	320	3,334	5,301	8,635	1,389	7,2
1961	3,277	3,277	83	2,850	1,511	1,513	384	335	3,215	5,630	8,845	1,413	7,4
1962	3,282	3,283	182	2,833	1,609	1,617	395	353	3,119	5,963	9,082	1,424	7,6
1963	3,371	3,371	274	2,882	1,694	1,696	405	391	3,121	6,314	9,434	1,522	7,9
1964	3,809	3,809	226	3,220	1,829	1,829	438	448	3,172	6,691	9,863	1,545	8,3
1965	4,418	4,418	167	3,788	1,947	1,965	477	493	3,134	7,091	10,225	1,529	8,6
1966	4,879	4,879	(c)260	4,188	2,095	2,120	492	536	3,145	7,495	10,639	1,505	9,1
1967	5,228	5,228	(c)450	4,456	2,287	2,290	516	601	3,275	7,934	11,209	1,532	9,6
1968	5,760	5,760	(c)655	4,917	2,463	2,469	540	684	3,600	8,317	11,917	1,558	10,3
1969	6,086	6,086	(c)236	5,489	2,688	2,699	574	783	3,682	8,831	12,512	1,698	10,8
1970	6,979	6,979	(c)446	6,339	3,010	3,036	615	861	3,885	9,320	13,205	1,580	11,6

(a) At 30 June. Expressed in Australian currency equivalents at ruling rates of exchange. (b) Loan expenditure on works and servic
(c) Includes expenditure financed under the United States Defence Credits Arrangements.

SOCIAL

PENSIONS, BENEFITS, ETC.

Year ended 30 June—	Age and invalid pensions		Child endowment		Widows' pensions		Unemployment benefits	
	Pensioners (a)	Amount paid	Children endowed (a)	Endowment paid	Pensioners (a)	Amount paid	No. on benefit—weekly average	Amount paid
	'000	$m	'000	$m	'000	$m	'000	$m
1902	..	..	..	..	..	..	..	..
1912	90	4.3	..	..	..	..	..	..
1922	147	10.8	..	..	..	..	..	..
1932	261	22.3	..	..	..	..	..	..
1942	341	38.5	910	22.6	..	..	..	..
1943	331	44.6	908	23.3	38	4.7	..	..
1944	320	43.4	922	(b)24.5	42	5.6	..	..
1945	316	43.4	939	24.1	44	5.9	..	..
1946	333	53.9	965	36.0	45	6.5	6	1.0
1947	364	58.8	1,007	(b)39.7	43	6.7	9	1.8
1948	381	73.1	1,050	38.9	43	7.8	4	0.7
1949	403	83.4	1,105	48.6	43	8.8	2	(c)
1950	414	89.1	1,836	(b)60.7	43	8.8	13	2.5
1951	417	99.0	2,389	87.2	42	9.7	1	(c)
1952	426	119.6	2,518	93.2	41	11.2	2	(c)
1953	451	144.8	2,624	(b)106.5	41	12.7	30	9.1
1954	478	162.6	2,717	101.5	41	13.2	14	5.0
1955	510	176.0	2,789	105.1	42	13.7	4	1.4
1956	535	203.3	2,876	(b)120.8	43	15.4	4	1.4
1957	554	218.4	2,978	114.1	45	17.7	12	4.2
1958	574	243.2	3,074	117.5	47	19.7	24	9.8
1959	598	259.1	3,172	(b)135.1	50	21.6	28	11.9
1960	619	294.0	3,252	125.1	52	24.3	21	9.0
1961	651	315.9	3,340	(b)148.6	55	26.9	22	8.9
1962	691	360.5	3,420	132.8	57	30.2	53	25.3
1963	711	375.5	3,458	135.4	58	31.4	40	21.3
1964	725	399.9	3,631	(b)168.8	62	41.6	26	13.5
1965	736	426.6	3,711	172.8	65	47.0	14	6.8
1966	744	442.4	3,763	176.4	69	50.0	15	7.8
1967	764	481.8	3,835	(b)199.3	73	56.4	21	11.2
1968	797	514.1	3,891	187.9	75	61.1	22	11.2
1969	827	558.6	3,996	193.3	78	69.1	18	9.3
1970	913	642.0	4,079	(b)220.1	87	81.8	13	8.9

(a) At 30 June. (b) Five 12-weekly payments made during the year instead of the normal four. (c) Less than $0.05m.

SOCIAL—*continued*

PENSIONS, BENEFITS, ETC.—*continued*

Year ended 30 June—	*Hospital and nursing home benefits—amount paid*	*Medical benefits—amount paid*	*Pharmaceutical benefits—amount paid*	*Total Commonwealth expenditure on pensions, benefits, etc.(a)*	*War pensions*		*Service pensions*	
					No.(b)	*Amount paid*	*No.(b)*	*Amount paid*
	$m	$m	$m	$m	'000	$m	'000	$m
1902 . .	..	..	..	..	..	..	..	..
1912 . .	..	..	..	4.3	..	..	..	..
1922 . .	..	..	..	12.1	225	14.1	..	..
1932 . .	..	..	..	23.0	274	14.9	..	..
1942 . .	..	..	..	61.8	220	15.0	14	1.2
1943 . .	..	..	..	73.2	227	16.8	13	1.3
1944 . .	..	..	..	78.3	245	20.8	13	1.3
1945 . .	..	..	..	78.8	281	22.9	13	1.3
1946 . .	2.2	..	..	106.4	360	26.6	13	1.6
1947 . .	8.8	..	..	124.0	395	30.2	14	1.8
1948 . .	8.9	..	..	137.2	416	32.7	16	2.5
1949 . .	11.8	..	..	161.6	440	37.9	16	2.7
1950 . .	12.6	..	0.1	185.6	471	42.1	16	2.9
1951 . .	13.1	..	5.9	230.0	503	53.1	17	3.0
1952 . .	13.4	2.1	15.4	275.2	525	66.7	17	3.6
1953 . .	14.4	3.5	14.4	331.0	544	72.6	19	4.5
1954 . .	16.7	7.2	18.5	353.1	564	78.1	21	5.4
1955 . .	18.6	13.5	21.5	378.6	584	87.8	22	6.0
1956 . .	19.1	14.6	23.8	429.7	600	91.3	35	8.3
1957 . .	19.6	18.3	23.4	447.8	614	95.6	39	9.8
1958 . .	21.6	20.6	30.1	495.0	629	106.6	42	11.3
1959 . .	29.6	23.2	41.9	556.5	643	109.0	44	12.4
1960 . .	37.2	26.8	48.7	598.7	655	117.5	46	13.5
1961 . .	41.3	28.4	55.8	661.2	662	132.6	50	15.6
1962 . .	44.4	30.6	70.4	730.4	671	135.1	58	19.4
1963 . .	47.3	32.6	76.9	758.6	671	140.7	62	21.7
1964 . .	56.2	34.4	78.8	832.7	669	154.5	65	24.2
1965 . .	58.8	44.6	82.2	890.4	660	153.5	65	25.5
1966 . .	60.7	54.6	91.8	941.6	646	170.1	66	28.2
1967 . .	67.4	58.2	101.3	1,031.1	631	161.4	67	29.1
1968 . .	74.8	62.5	105.1	1,075.0	617	164.4	69	31.8
1969 . .	85.9	66.5	118.4	1,162.3	601	182.9	67	34.1
1970 . .	111.4	76.1	136.7	1,341.8	585	183.5	74	39.9

(*a*) National Welfare Fund items only, including expenditure for all years on pensions benefits, etc., which subsequently became payable from the National Welfare Fund. In addition to the items shown in the preceding columns, the tables include expenditure on—the rehabilitation service; milk for school children; tuberculosis campaign; sickness, special and funeral benefits and some miscellaneous welfare and health services. Excludes war and service pensions, telephone rental concessions for pensioners, and some minor welfare and health services. (*b*) At 30 June.

EDUCATION

POLICE AND PRISONS

Year(a)	*Schools*				*Universities*		*Police*	*Prisons*	*Convicted prisoners*
	Government		*Non-government*						
	Schools	*Pupils*	*Schools*	*Pupils*	*Number*	*Students*			
	'000	'000	'000	'000		'000	'000	No.	'000
1902 . .	7.2	637	2.4	144	4	1.9	5.9	n.a.	4.2
1912 . .	8.4	663	1.9	164	5	3.8	6.6	101	3.4
1922 . .	9.6	837	1.7	202	6	7.8	7.0	92	3.0
1932 . .	10.2	934	1.8	221	6	9.9	8.6	85	4.1
1942 . .	9.0	868	1.8	250	6	10.6	9.7	71	3.5
1943 . .	8.8	874	1.8	264	6	11.4	9.6	69	3.5
1944 . .	8.7	878	1.8	275	6	14.7	9.4	70	3.9
1945 . .	8.4	875	1.8	273	6	17.8	9.4	70	3.9
1946 . .	8.3	887	1.8	277	7	25.0	9.9	70	3.6
1947 . .	8.2	906	1.9	281	7	30.0	10.2	73	3.8
1948 . .	8.0	928	1.8	281	7	31.9	10.6	72	3.5
1949 . .	7.9	971	1.8	293	8	31.1	11.1	71	3.8
1950 . .	7.8	1,027	1.9	310	8	30.0	11.5	70	4.0
1951 . .	7.6	1,078	1.9	326	8	31.1	11.9	70	4.2
1952 . .	7.6	1,145	1.9	348	8	29.1	12.6	69	4.8
1953 . .	7.6	1,206	2.0	366	9	28.3	12.7	70	4.8
1954 . .	7.6	1,275	2.0	388	9	28.9	12.6	71	4.8
1955 . .	7.6	1,337	2.1	410	9	30.3	12.9	72	5.1
1956 . .	7.7	1,357	2.1	432	9	34.0	13.5	73	6.0
1957 . .	7.7	1,427	2.0	453	9	36.6	14.1	73	6.4
1958 . .	7.8	1,498	2.0	474	10	41.5	14.5	73	6.6
1959 . .	7.8	1,560	2.1	492	10	47.2	14.9	74	6.6
1960 . .	7.9	1,613	2.1	511	10	53.4	15.3	77	6.8
1961 . .	8.0	1,664	2.1	527	10	57.7	15.9	75	7.2
1962 . .	7.9	1,713	2.2	540	10	63.3	16.4	74	7.4
1963 . .	7.9	1,757	2.2	553	10	69.1	16.7	73	7.7
1964 . .	7.9	1,801	2.2	565	10	76.2	17.2	74	7.7
1965 . .	7.8	1,857	2.2	581	11	83.3	17.6	74	7.7
1966 . .	7.8	1,921	2.2	583	12	91.3	18.4	76	8.1
1967 . .	7.8	1,994	2.2	595	14	95.4	19.0	75	8.7
1968 . .	7.7	2,058	2.2	601	14	101.5	19.7	79	8.8
1969 . .	7.6	2,117	2.2	603	14	110.0	20.1	74	9.2

(*a*) Years ended at varying dates.

CHRONOLOGICAL TABLE

CHIEF EVENTS IN AUSTRALIA SINCE 1955

NOTES. In issues of the Year Book up to No. 48 (*see* No. 48, page 1201) this table covered events back to the establishment of settlement in Australia in 1788. Later issues up to No. 50 (*see* No. 50, page 1289) covered events back to 1945. This issue covers the years 1955 to 1969 and the first half of 1970.

For each earlier year this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

1955 First power generated by Snowy Mountains Hydro-electric Authority. Australian population reached 9,000,000. Cocos (Keeling) Islands became Territory under authority of Commonwealth.

1956 Amendment to Conciliation and Arbitration Act altered the structure of the arbitration machinery by separating judicial functions from conciliation and arbitration functions.

1957 High Court ruled that interstate vehicles could not be compelled to register in New South Wales, but upheld validity of Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. National Capital Development Commission set up to co-ordinate development of Canberra.

1958 Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. Christmas Island (Indian Ocean) transferred to Australian Administration.

1959 Annual Holidays Act, 1944–1958 provided for three weeks' annual holiday for all New South Wales workers. Population reached 10,000,000.

1960 Provision made for Social Service benefits to be paid to Australian Aborigines. *Commonwealth Banks Act* 1959 and *Reserve Bank Act* 1959 proclaimed (*see* page 481). National Service training suspended. Commonwealth Government announced special economic measures designed to counter inflationary trend and safeguard overseas funds.

1961 Commonwealth *Matrimonial Causes Act* 1959 unifying State Acts became operative (*see* page 446). Oil discovered in south-west Queensland. Australian population census taken. Iron ore deposits estimated at 1,800 million tons discovered at Pilbara (Western Australia).

1962 Commonwealth and Western Australian Electoral Acts amended to provide for votes for Aborigines. Work began on standardisation of rail gauge from Kwinana to Kalgoorlie (Western Australia). First production of bauxite ore from Weipa deposits. Aborigines exercised voting rights in Northern Territory for first time.

1963 Approval given to agreement for United States to operate a naval communications station at North West Cape, Western Australia. Australian population reached 11,000,000.

1964 R.A.N. Destroyer *Voyager* sunk in collision off Jervis Bay with loss of eighty-two lives. New South Wales Government employees granted four weeks' annual leave. Moonie to Brisbane oil pipeline opened and Australia's first commercial oil production started. Northern Territory Legislative Council passed legislation removing discrimination against Aborigines. Commonwealth Government established licensing system for intra-state civil aviation. Australian forces saw action in Malaysia. Resumption of National Service Training and establishment of special Reserve Forces announced (*see* page 89). *National Service Act* 1964 passed. Commonwealth Government allowed export of iron ore to Japan from fields in Western Australia.

1965 Full High Court judgment on intra-state airlines case held that intra-state services need to hold both a State licence and a Commonwealth licence. Martin Report on tertiary education tabled in House of Representatives. New steelworks opened at Whyalla (South Australia). Report of Vernon Committee of Economic Enquiry (appointed in 1963) tabled in House of Representatives. First trade agreement between Australia and U.S.S.R. signed in Moscow. Economic sanctions imposed on Rhodesia. Mills Cross radio telescope opened near Hoskinstown (N.S.W.).

1966 The New Zealand–Australia Free Trade Agreement came into force. Mr Harold Holt sworn in as Prime Minister. Australia adopted dollar-cent system of decimal currency. Immigration laws amended to provide for relaxation of restrictions on entry of persons of non-European race (*see* page 151). Member for Australian Capital Territory given full voting rights. Commercial oilfield declared at Barrow Island (W.A.). Australia joined eight other nations in forming Asian and Pacific Co-operation Council (ASPAC). 1966 census taken. Increase of $2 a week granted in the Basic Wage. Burrinjuck Reservoir only one-third full. President Johnson of United States of America made four-day visit to Australia. Permanent employment of married women by Commonwealth Government proclaimed. Minimum housing and food standards for Aboriginal employees in Northern Territory gazetted. First television programmes interchanged direct between Britain and Australia by means of the orbiting satellite INTELSAT II.

1967 Worst bushfires in history of Tasmania caused loss of 51 lives and property damage estimated to be more than $20 million in Hobart environs and southern Tasmania. Honeysuckle Creek space tracking station for Apollo moon-probe opened. SEACOM communications cable linking Australia with south-east Asia opened. Commonwealth and State Governments reached agreement on off-shore oil and gas legislation. Under new regulations for export of uranium, exporters must find new deposits at least equal in quantity to proposed exports. Referendum in northern New South Wales concerning proposed new State of New England resulted in defeat of proposal. Two Commonwealth referendums held (*see* page 75). First direct satellite telecast from North America to Australia. *Defence Forces Protection Act* 1967 came into operation. H.M.A.S. *Oxley*, first of Australia's new submarines, arrived at new submarine base, H.M.A.S. *Platypus*. 36th Session of International Statistical Institute held in Sydney. *Trade Practices Act* 1965–1967 came into force. Announced that Commonwealth Government would establish an Office of Aboriginal Affairs to co-ordinate policy and to provide the machinery necessary for joint consultations with the States. Daylight saving became effective in Tasmania. Announced that Australia's forces in Vietnam would be increased by more than 1,700 in November–December. Drought in Victoria became increasingly severe. Australian Resources Development Bank formed by Australia's Major Trading Banks and Reserve Bank. Government decision not to devalue Australian dollar with pound sterling announced. Australia launched its first satellite at Woomera. Senate select committee recommended that Australia change over to metric system of weights and measures. Commonwealth Conciliation Commission awarded increases of up to $7.40 in margins to metal trade workers. Lone yachtsman, Alec Rose, reached Australia from England. Prime Minister, Rt Hon. Harold Holt, disappeared while swimming off Portsea, Victoria; Rt Hon. J. McEwen sworn in as Prime Minister.

1968 Uniform Commonwealth–State censorship laws came into force. Senator J. G. Gorton elected leader of Liberal Party and sworn in as Prime Minister. Twelve-mile fishing limit around Australia, Nauru, Papua and New Guinea, and Cartier Islands operated from 30 January. Nauru became an independent nation on 31 January. New Victorian stamp duty on receipts. The full bench of the Arbitration Court decided that thirty per cent of wage increases exceeding $1.60 per week granted to metal trade employees in December 1967 would be deferred until August. Report of the second Royal Commission into loss of H.M.A.S. *Voyager*. Commonwealth Government approved in principle the transfer of the principal seat of the High Court to Canberra. Joint Commonwealth–State off-shore petroleum legislation operated from 1 April. First liver transplant operation in Australia performed in Sydney. Population reached 12,000,000. A direct shipping service between Australia and Chile commenced. Northern Territory member in House of Representatives given full voting rights. Report of United Nations mission to Territory of New Guinea issued by Trusteeship Council. The $25 million Warringah Expressway opened in Sydney. Vietnam Medal for Australian Armed Forces instituted. The Commonwealth and State Transport Ministers agreed to new safety design standards for motor cars to be adopted by each state and expected to be introduced on all cars first registered from 1 January 1970. Dr H. C. Coombs retired, after nineteen years as Governor of the Reserve Bank or its earlier equivalent, the Commonwealth Bank. It was announced that an interim council, of twelve members, responsible for the planning and construction of the National Art Gallery had been created. The Arbitration Commission ordered that the outstanding 30 per cent of the December 1968 judgment be paid from 21 August. Two pulsars, mysterious radio sources in the Milky Way, discovered by the Mills Cross radio telescope. The National Library of Australia was opened by the Prime Minister. The United States Presidential Unit Citation presented to the 6th Battalion R.A.R. The Victorian National Gallery was officially opened. *Privy Council (Limitation of Appeals) Act* 1968, which makes the High Court of Australia the final court of appeal in all issues involving

1968 *–cont* Commonwealth law and jurisdiction, came into operation. Announcement of a five year $1,000 million development plan for Papua and New Guinea, with the basic aim of developing the territory economically for self-determination. President Park of Korea arrived for a three-day visit. Blowering Dam officially opened. The Arbitration Commission handed down the national wage judgement that the total wage be increased by $1.35 per week (*see* page 263). The price of Australian produced oil to be cut once the incentive scheme for Australian producers of crude oil had been amended (*see* page 913). An earth-quake devastated the town of Meckering in Western Australia. The first heart transplant in Australia was performed in Sydney. Work commenced on the $27 million Fairbairn Dam in Queensland. Through late October and early November there were disastrous bushfires in New South Wales around Wollongong and in Blue Mountains. Inaugural meeting of the Australian Minerals Council held. Commonwealth legislation introduced to establish a fund of $4.65 million to enable Aborigines to set up in business, and to provide a non-repayable grant of $3.65 million to the States for Aboriginal advancement. Announced that Aborigines will get post-secondary education study grants, commencing in 1969. An Ordinance to prevent the takeover of life insurance companies registered in the Australian Capital Territory became operative. Full award wages for Aborigines employed in the Northern Territory pastoral industry became operative. Gas leak at Marlin oil rig in Bass Strait and eventually sealed by an American expert brought to Australia.

1969 *January*. The Prime Minister attended the conference of Commonwealth Prime Ministers in London. The Australian stock exchanges took steps to permit differential voting rights on the shares of listed companies to prevent overseas takeovers. Fifteen died and more than 200 houses were destroyed in disastrous fires in Southern Victoria. Cannon from Captain Cook's ship the *Endeavour* were found in Northern Queensland waters.

February. The Sydney–Melbourne express train the *Southern Aurora* collided head-on with a goods train at Violet Town, Victoria, causing loss of life and extensive damage to both trains. The new Bass Strait ferry, the *Australian Trader*, of 8,500 tons, was launched at the State dockyard in Newcastle, N.S.W.

March. Australia's first natural gas pipe line from Roma to Brisbane was opened. The Nimmo report on national health insurance scheme tabled in the House of Representatives. Natural gas entered the Melbourne metropolitan system for the first time.

April. A receipts tax in Tasmania became operative. The Prime Minister announced that Australia would give Malaysia ten Sabre aircraft and associated support services. Sir Paul Hasluck was sworn in as Governor-General.

May. The *Copyright Act* 1968 became operative and at the same time Australia became a party to the Universal Copyright Convention and to the Brussels revision of the Berne Copyright Convention. The Prime Minister visited the United States of America for discussions with the President, Mr Nixon. Mr Bethune, the leader of the Tasmanian Liberal–Centre party coalition, was sworn in as Premier following the elections in which the Labor Party was defeated after thirty-five years in office. Australia-wide stoppages took place over the operation of the penal provisions of the Commonwealth Conciliation and Arbitration Act. The Commonwealth Government decided that Camp Hill would be the site for the new and permanent Parliament House in the National Capital.

June. The H.M.A.S. *Melbourne* collided with the destroyer U.S.S. *Evans*, cutting that ship in half, during a SEATO exercise in the South China Sea, with the loss of fifty-seven American seamen. A joint inquiry (United States Navy and Royal Australian Navy) into the collision was held at Subic Bay in the Philippines. Five power (Australia, New Zealand, United Kingdom Malaysia and Singapore) talks on the future defence of Malaysia and Singapore were held in Canberra. The Arbitration Commission handed down its decision on equal pay for women (*see* page 264). The Governor-General Sir Paul Hasluck officially opened the Mount Newman, Western Australia, iron ore enterprise from which the first shipment of iron ore had been made on 1 April 1969.

July. The Commonwealth Public Service Board and union representatives reached agreement on a new salary structure for administrative and clerical officers. Transport Ministers agreed that all new motor vehicles after July 1970 are to be fitted with air pollution control devices. The Commonwealth Statistician announced that the Bureau of Census and Statistics would conduct integrated censuses of manufacturing and mining industry, and retail and wholesale trade during August; for the first time in Australia, all statistical information derived would be based on common concepts, uniform definitions and a standard industrial classification. The Perth to Carnarvon co-axial cable system came into operation carrying telephone circuits and TV relays simulataneously (*see also* November 1969).

1969 –*cont* *August*. The High Court ruled that the States had no rights or jurisdiction over territorial waters adjacent to their coastline or over the sea-bed. The Duke and Duchess of Kent arrived in Australia for their first visit and to open the third South Pacific Games in Port Moresby. Australian Universities and Colleges of Advanced Education to receive a total of $910m in the next three years. Warrant Officer R. S. Simpson awarded the V.C. for gallantry in Vietnam, Australia's third award. Australian National Line ship, the freighter *Noongah* sank during a gale off the northern N.S.W. coast with the loss of 21 lives. Announcement of a new defence planning concept of a rolling programme constantly under review for each succeeding five years; $130 million to be spent in the first year, mainly on support equipment and base facilities. A new Australia-New Zealand defence pact announced, involving standardisation in logistics and planning.

September. Victorian vehicle industry employees began a series of stoppages which lasted until 30 November, to support claims for increased wages. The 1969 biennial congress of the Australian Council of Trade Unions attended by 755 delegates. Warrant Officer Keith Payne awarded the V.C. for gallantry in Vietnam. Wiltshire Report on the Colleges of Advanced Education tabled in Parliament. Reports of the Senate Select Committees on Medical and Hospital Costs, and on Air Pollution tabled in the Senate.

October. Females who were granted equal pay under awards of the Commonwealth Conciliation and Arbitration Commission as a result of the Equal Pay Cases 1969 (*see* page 264) had their rates of pay increased to 85 per cent of the corresponding male rate. Bass Strait under-sea oil piped to shore for the first time. National Farmers' Union and the Australian Primary Producers' Union amalgamated to form the Australian Farmers' Federation. Federal elections held and Liberal-Country Party coalition returned with a majority of 7.

November. Third Gorton Ministry sworn in. Postmaster-General announced the leasing of 24 voice grade circuits through satellite INTELSAT III and with the aid of the Carnarvon station (*see* July 1969) the world's first internal continental communications link based on a satellite in stationary orbit became possible. The Lurgi plant at Morwell, Victoria which produced Victoria's gas from brown coal, closed down because of the availability of natural gas from the Bass Strait fields. Construction of the transcontinental standard gauge rail link completed at Broken Hill. The Prime Minister announced new rail construction schemes including the construction of a new standard gauge rail link to Alice Springs.

December. The Commonwealth Conciliation and Arbitration Commission's decision in the National Wage Case 1969 increased total award wages by 3 per cent and the minimum wage for adult males by $3.50 per week (*see* page 264). State industrial tribunals granted similar increases for employees affected by State awards. The concept of the minimum wage for adult males was adopted for Victorian Wages Board determinations (*see* page 266). The Australian Expo 70 pavilion in Osaka, Japan officially handed over to the Australian Government by the builders. Mr Albert Monk retired as President of the A.C.T.U. and was succeeded by Mr R. J. Hawke.

1970 (*to June*) *January*. The *Patents Act* 1969 came into effect; it conferred on the Commissioner of Patents, power to require an applicant to elect whether he wishes to have his application examined. Design rules relating to seat belts, seat belt anchorages and hydraulic brake hose for motor vehicles came into effect. The 14,000 mile England to Australia air race finished at Bankstown, N.S.W.; it commenced in England on 18 December 1969 and marked the 50th Anniversary of the first flight by Sir Ross and Sir Keith Smith and commemorated the Captain Cook Bicentenary year. A freight train departed from Sydney to inaugurate the direct standard gauge railway link to Perth. The United States Vice-President, Mr Spiro Agnew, arrived on a two day visit. A Commonwealth Secondary School Scholarship Scheme for Aborigines beyond school leaving age was announced, providing books and living allowances. A ship wreck discovered off the Western Australian coast was found to be the *Tryal* which ran aground in 1622; it was the earliest recorded wreck off the Australian coast. The cyclone 'Ada' caused severe damage off the northern Queensland coast; many island resorts devastated. H.M.A.S. destroyer *Escort* valued at $22 million commissioned at Williamstown Naval Dockyard. The Federal Government imposed controls on the export of Australian natural gas.

February. Nine men drowned when the oil rig work-boat *Sedco Helen* sank in the Joseph Bonaparte Gulf, 150 miles west of Darwin. The Tullamarine Freeway, connecting the city of Melbourne to the new Tullamarine airport, was opened; costing $35 million. A large gas strike at Palm Valley (near Alice Springs) in the Northern Territory. The High Court decided that the Victorian and Western Australian stamp tax, receipt tax or turnover tax, was illegal; the Prime Minister announced that legislation would be introduced to enable the Federal

1970 (*to June*) –*cont* Government to collect the tax on behalf of the States. The *Indian-Pacific* rail passenger service inaugurated. The Commonwealth and State Transport Ministers agreed to the introduction of seven new compulsory safety features on cars between July 1970 and January 1972. A special Premiers' Conference on Commonwealth-State financial relations held in Canberra. The Prime Minister and the South Australian Premier signed an agreement for construction of a railway (standard gauge) between Port Augusta and Whyalla, S.A. Australia signed the Nuclear Non-Proliferation Treaty.

March. Tenders called for the Jervis Bay nuclear power station. The 27th Commonwealth Parliament opened. Captain Cook cannon handed over, one each to New South Wales, Queensland, New Zealand, United Kingdom and the Philadelphia Academy of Natural Science, U.S.A. Builders' labourers in several States began a series of stoppages which lasted until 11 June, for increased rates of pay. Waterside workers stopped work in all States to press for increased wages and improved conditions of work; the stoppages lasted four days. Coal miners in New South Wales began a series of stoppages which continued until August, to press for a 35 hour week. A High Court judgement in Sydney upheld the validity of the Trade Practices Tribunal following a challenge by Tasmanian Breweries Pty Ltd. It was announced that the Federal Government proposed to carry out an $18 million survey of the Continental shelf and slope to assess the potential resources of off-shore Australia. Queen Elizabeth II, Duke of Edinburgh, Prince Charles and Princess Anne commenced their Royal Visit.

April. It was announced that Australia would give Indonesia $53.8 million in direct aid over the next three years. The Prime Minister announced the setting up of a Joint Committee to investigate the problem of the Crown of Thorns starfish. The *Continental Shelf (Living Natural Resources) Act* 1968 came into effect, implementing Australian sovereignty over the living resources of the Continental Shelf. The partially completed tanker *Amanda Miller*, largest ship ever to be built in Australia, gutted by fire at the Whyalla shipyard in South Australia. Cape Everard, Victoria, renamed Point Hicks, after Lieutenant Hicks who sailed with Captain Cook.

May. Queen Elizabeth II opened a new international terminal at the Sydney Airport. Waterside workers obtained increased rates of pay, four weeks annual leave and other improved conditions of work under a new agreement with employers. The Prime Minister announced the appointees and terms of reference for the Royal Commission to investigate oil drilling in the Barrier Reef region. Vietnam Moratorium Day held on 8 May—thousands of people marched in all State capitals as a protest against Australia's participation in the Vietnam war. The Queensland Industrial Conciliation and Arbitration Commission adopted the concept of minimum wage for adult males to operate from 8 May. The Canadian Prime Minister, Mr Trudeau, made a visit to Australia. Employers, trade unions and the Commonwealth Government agreed on new industrial dispute procedures in the Commonwealth industrial sphere. Building workers in a number of States stopped work in support of a claim for long service leave. It was announced that the Bureau of Transport Economics would be established in the Department of Shipping and Transport and that its function would be to analyse the costs and economics of transport in Australia. State elections held in South Australia following the defeat of the Government over the Chowilla and Dartmouth Dam issue; the Labor Party came into office with a majority of 7 and Mr Dunstan was sworn in as Premier. In the Victorian State elections the Liberal Party under Sir Henry Bolte was returned to office.

June. The New Zealand Prime Minister made a seven day visit to Australia. The Senate Select Committee Water Pollution report was tabled in the Senate. A $10 million micro wave radio system linking Western Australia with the eastern States was officially opened. The Commonwealth Parliament approved the setting up of 7 standing committees and 5 estimates committees in the Senate. The *Australian Industry Development Corporation Act* 1970 assented to; it provided for the establishment of a corporation to provide financial assistance to Australian business enterprises. It was announced that weekend gaol sentences for young offenders would be introduced in Queensland. The Senate rejected the Receipts Tax Bill which would have empowered the Commonwealth to collect the tax for State Governments (*see* February). The *Marginal Dairy Farmers Agreement Act* 1970 came into effect making available to the States up to $25 million over a four year period to implement marginal dairy farm reconstruction. The Snowy Mountains Engineering Corporation was established, replacing the Snowy Mountains Authority.

DIARY OF PRINCIPAL ECONOMIC EVENTS, 1969-70

The principal economic events in earlier years were shown in the following issues:

Years	*Year Book No.*	*Pages*
1931 to 1938	33	968–77
1939 to 1944	36	1129–41
1945 to 1948	37	1235–45
1949 to 1951	39	1331–40
1952 to 1955	42	1149–60
1956 to 1958	46	1185–92
1958–59 to 1961–62	48	1188–1200
1962–63	49	1253–56
1963–64	50	1283–88
1964–65	51	1269–74
1965–66	52	1185–88
1966–67	53	1279–82
1967–68	54	1253–57
1968–69	55	1243–48

In 1969–70 the Australian economy continued to expand but at a more modest rate than in the previous year. The farm sector suffered a number of setbacks but activity in the capital intensive mining industry continued to rise strongly. Unemployment remained low throughout the year and there was a substantial increase in the level of exports of most commodities. Rising prices, accompanying the strong growth in wages and in demand, became evident in the course of the year and the Government accordingly initiated rises in interest rates. Prices rose at a slower rate than in many other developed countries.

The overall production performance of the economy is summarised in the growth in gross national product measured at constant prices. This rose by 5.5 per cent in 1969–70 compared with an increase of 8.6 per cent in 1968–69. Non-farm gross product, measured at current prices, increased by 13 per cent in 1969–70 compared with an increase of 11 per cent in 1968–69. Gross farm product fell by 8 per cent in 1969–70 compared with a rise of 27 per cent in 1968–69.

Demand for goods and services continued at a high level, particularly for consumer goods. Personal consumption expenditure at constant prices grew more rapidly in 1969–70 than in 1968–69, but the other major components of gross national expenditure—current expenditure on goods and services by public authorities, and public and private gross fixed capital expenditure—grew more slowly in 1969–70, measured at constant prices.

Wages and salaries, and the gross operating surplus of companies and of dwellings owned by persons increased faster in 1969–70 than in 1968–69, while the gross operating surplus of public enterprises increased more slowly. Because of the decline in farm income, the gross operating surplus of unincorporated enterprises showed negligible growth after a significant recovery in 1968–69. The rate of growth in wages, salaries and supplements moved upward for the second successive year, with both employment and average earnings growing faster than in 1968–69. Average earnings, with overtime at a very high level, increased by 9 per cent in 1969–70, the most rapid increase since the early nineteen-fifties. The main sources of the growth in employment were immigration and the movement of married women into the labour force. Net immigration in 1969–70 at 112,564 compared with 126,425 in 1968–69 but the percentage of married women in the labour force continued to increase sharply during 1969–70 reaching 33.5 per cent in May 1970.

The balance of payments on current account in 1969–70 resulted in a deficit of $830 million, a significant improvement compared with the 1968–69 deficit of $1,006 million. There was a balance of trade surplus of $397 million in 1969–70, a notable increase over the surplus of $14 million in the previous year. Exports of goods (on a balance of payments basis) during the year increased substantially in value and were 24 per cent above the 1968–69 total. Of the major commodities only exports of wool and sheepskins, fruit and sugar declined in value in 1969–70 while there were large increases in the values of exports of meats, cereals, metalliferous ores and scrap, coal and manufactured goods, particularly manufactures of iron and steel, non-ferrous metals and machinery and transport equipment. The value of imports (on a balance of payments basis) increased at a slower rate (12 per cent) in 1969–70. The improvement of $383 million in the balance of trade was, however, partly offset by an increase of $207 million in the deficit on other current account transactions. Payments (net of receipts) in respect of travel, transportation and other services rose by $35 million in 1969–70; there was an increase of $142 million in net property income payable overseas; and net transfer payments, private and government, rose by $30 million.

The deficit of $830 million on current account in 1969–70 was accompanied by a net apparent capital inflow of $867 million, resulting in a favourable net monetary movement for the year of $37 million. There was a noteworthy development in international monetary arrangements during 1969–70 with the introduction, in January, of the International Monetary Fund's Special Drawing Rights (S.D.R.'s) scheme, which is designed to increase international liquidity. Under the initial allocation of S.D.R.'s Australia's official reserve assets were augmented by $75 million. Including holdings of S.D.R.'s, the value of gold and net foreign assets held by Australian official and banking institutions stood at $1,638 million at 30 June 1970, an increase of $124 million over the previous year.

Drought or falling world prices affected much of the farm sector during 1969–70. A glut of wheat in Australia and the rest of the world led to the introduction of wheat quotas in Australia for 1969–70, and subsequently to reduced quotas for 1970–71. A record quantity of wool was produced in 1969–70 but with prices falling, the total value was lower.

The mining industry's expansion had widespread effects on other industries and was the focus of world attention. Discoveries of large mineral reserves continued through 1969–70, contributing to a boom in share prices around the end of 1969. During 1969–70 commercial oil production from the new Bass Strait field commenced and a number of large contracts were signed between Australian and overseas companies for the supply of mineral products. These included large contracts for the supply of liquefied petroleum gas and of iron ore.

Commonwealth–State financial relations were complicated during the year by the High Court ruling on the receipts taxes imposed by State governments. Legal action between the States of Western Australia and Victoria, and companies which had refused to pay the taxes, led to a High Court ruling that some of the taxes were excise duties and so, under the Constitution, could not be imposed by State governments.

Preservation of the environment, particularly against pollution, emerged as a prominent issue which may have significant economic effects in future years. Reports of Senate Select Committees on air and water pollution were tabled, a Royal Commission to investigate oil drilling on the Barrier Reef was set up and it was decided to appoint a Select Committee of the House of Representatives to inquire into the preservation of Australian wildlife. An oil drilling programme at Repulse Bay in Queensland was deferred pending results of the inquiry into possible oil drilling damage to the Barrier Reef.

1969–70

1 *July*, Registered companies and residents of the Australian Capital Territory pay stamp duty on share transfers, cheques, promissory notes, hire-purchase and other transactions for the first time.

Double tax agreement with Singapore; for Australia commences with year of income, beginning on or after 1 July 1969; for Singapore assessment year 1970, i.e. income derived after 1 January 1969.

4 *July*. Special Bonds—Series T issued at par with interest rates ranging from 5.2 to 6 per cent and optional redemption prices ranging from par to 103 per cent at maturity on 1 June 1977.

6 *July*. Increased salaries announced for most officers in Armed Forces—salaries of officers of brigadier and major-general rank or equivalent and of chaplains, medical and dental officers under consideration.

7 *July*. Salary increase of 9.43 per cent for Commonwealth Service Third Division Officers announced, to operate from 17 July.

9 *July*. Postal workers to receive 7–12 per cent pay increase.

10 *July*. Commonwealth cash loan opened with yields of 5.4 per cent for 2 years 10 months, 5.8 per cent for 9 years 10 months, 6 per cent for 22 years 3 months and 6 per cent for 36 years. An amount of $96 million was raised. A conversion offer was made on the same terms as the cash loan for $325 million maturing 15 July. An amount of $236 million was converted.

31 *July*. The Reserve Bank announced increased bank interest of 5 per cent on fixed deposits; increased overdraft interest rate to 7.75 per cent and an increase in the Statutory Reserve Deposit that trading banks must maintain with the Reserve Bank.

12 *August*. Commonwealth Budget for 1969–70 introduced into House of Representatives. The Budget provided for estimated expenditure of $6,983.4 million and estimated receipts of $6,953.5 million in the year 1969–70. Further details of the 1969–70 Budget are set out in the Appendix to this Year Book. In 1968–69 receipts of the Commonwealth were $6,128.6 million, and expenditure amounted to $6,513.9 million. The main items of revenue (1967–68 figures shown in parentheses) were: income taxes $3,418.8 million ($3,036.7 million); excise duties $901.0 million ($853.6 million); sales tax $494.1 million ($417.0 million); customs duties $347.7 million ($313.7 million); and pay-roll tax $205.6 million ($184.4 million). The main items of expenditure were: payments to or for the States $1,457.2 million ($1,353.5 million); defence services $1,164.7 million ($1,115.4 million); social and health services $1,162.4 million ($1,075.0 million); State works and housing programmes $710.0 million ($677.0 million); advances for capital purposes $320.1 million ($365.0 million); and repatriation services $284.4 million ($260.1 million).

Announced that the Commonwealth Government would increase pensions and allowances (Health, Social Services and Repatriation benefits). For details *see* Year Book No. 55, pages 1261–2.

The Post Office declared a trading profit of $8 million.

20 *August*. Cheese manufacturers asked to restrict their output because of the accumulation of stock.

24 *August*. Agreement on fisheries between Australia and Japan came into operation; specified Japanese fishing activities in Australia's 12-mile fishing zone.

1 *September*. Shipping freight rates between Australia and the east coast of U.S.A. and Canada increased by 7½ per cent.

4 *September*. 1969–70 South Australian Budget introduced, providing for a deficit of $2,240,000. It was estimated that revenue would be $326,021,000 and expenditure $328,261,000. In 1968–69 revenue amounted to $298,355,000 and expenditure to $297,895,000 leaving a surplus of $460,000.

10 *September*. The first two Australian ships to engage in overseas trading for forty-two years arrived at Australian ports on their maiden voyages.

11 *September*. Commonwealth cash loan opened with yields of 5.4 per cent for 1 year 2 months, 5.5 per cent for 3 years 2 months, 5.8 per cent for 9 years 8 months, 6 per cent for 22 years 1 month and 6 per cent for 35 years 10 months. An amount of $193 million was raised. A conversion offer was made on the same terms as the cash loan for $326 million maturing 15 September. An amount of $246 million was converted.

1969–70 Tasmanian Budget introduced, providing for a deficit of $1,847,000 before receipt of the completion payment of the special grant. It was estimated that revenue would be $120,528,000 and expenditure $122,375,000. In 1968–69 revenue amounted to $107,845,000 and expenditure to $111,540,000 leaving a deficit of $3,695,000 before receipt of the completion payment of the special grant.

16 *September*. 1969–70 Victorian Budget introduced, providing for a deficit of $20,379,000. It was estimated that revenue would be $709,300,000 and expenditure $729,679,000. Railway operating expenses and income were estimated at $122,621,000 and $102,202,000 respectively, leaving a loss of $20,419,000. In 1968–69 total budget revenue amounted to $664,133,000 and total budget expenditure to $666,645,000 leaving a deficit of $2,461,000.

The Prime Minister announced new guidelines on borrowing by overseas companies in Australia.

25 *September*. 1969–70 Queensland Budget introduced, providing for a deficit of $2,367,000 with estimated revenue and expenditure at $423,078,000 and $425,445,000 respectively. In 1968–69 revenue amounted to $387,866,000 and expenditure to $388,777,000 leaving a deficit of $911,000.

26 *September*. The Commonwealth Government announced $80 million six year loan to Queensland for power station development in the Central Queensland area.

30 *September*. 1969–70 New South Wales Budget introduced, providing for an overall deficit of $6,758,000 after allowing for the net results of business undertakings. It was estimated that receipts and expenditure, excluding business undertakings, would be $753,947,000, and $760,502,000, respectively. In 1968–69 revenue was $968,509,000 and expenditure $972,096,000 leaving a deficit of $3,587,000.

1969–70 Western Australian Budget introduced, providing for a deficit of $2,410,000. It was estimated that revenue would be $310,733,000 and expenditure $313,143,000. In 1968–69 revenue amounted to $275,081,000 and expenditure to $276,137,000, leaving a deficit of $1,056,000.

1 *October*. A conversion offer of Special Bonds Series T was made for $39 million Special Bonds Series G maturing 1 October. An amount of $25 million was converted.

31 *October*. Commonwealth DM 150 million public loan ($36 million) opened in Germany, issued at 98 per cent with interest at 7.25 per cent for a period of 15 years to give a yield of 7.48 per cent per annum.

3 *November*. Drought Bonds Series 1 issued at par with interest rate of 3 per cent for 6 years 10 months.

8 *November*. Hamersley Iron Pty Ltd, announced a new $1,000 million long term (1972–87) iron ore contract with a group of Japanese steel mills. On 17 *November* it was announced that Japanese interests had also agreed to purchase iron ore costing $450 million from the Mt Newman project for the period 1970–81.

13 *November*. A contract for liquified petroleum gas (more than 500,000 tons per annum by 1973) signed between Esso-Australia and Japanese interests. B.H.P. also contracted on 6 *November* to supply Japanese interests with liquid petroleum gas ($100 million) over a long period.

14 *November*. Alcan Australia Limited's $35 million aluminium smelter at Kurri Kurri, N.S.W., opened by the Governor-General.

17 *November*. B.H.P. announced $71 million expenditure as part of $150 million plan to increase steel-making capacity of the Port Kembla plant.

1 *December*. The Commonwealth Conciliation and Arbitration Commission increased total award wages by 3 per cent and the minimum wage for adult males by $3.50 a week from the beginning of the first pay period on or after 19 December (*see* pages 264–8).

3 *December*. The Commonwealth Conciliation and Arbitration Commission granted increased salaries to professional engineers, to operate retrospectively from 17 October.

8 *December*. Announced that $100 million plus contract had been negotiated for supply of 2.2 million long tons of wheat to People's Republic of China.

15 *December*. U.K. to Australia shipping freight rates on general cargo rose by 10 per cent.

5 *January*. Announced that Australia had received $75 million in Special Drawing Rights (S.D.R's.), its first allocation from the IMF.

8 *January*. Overall quota of wheat for the 1970–71 period to be reduced from 357 million bushells to 318 million bushells.

12 *January*. Freight train departed from Sydney to inaugurate the first coast-to-coast standard gauge rail link to Perth, built at a cost of $210 million.

3 *February*. Commonwealth cash and conversion loan of 60 million Swiss francs to convert and redeem 60 million Swiss francs maturing 1 March. Issued at 99 per cent with interest rate of 6.25 per cent to give a yield over 15 years of 6.35 per cent.

5 *February*. Issued price of Commonwealth Treasury Notes was reduced to 98.78 per cent for three-months notes to yield 4.954 per cent per annum to maturity and 97.52 per cent for six-months notes to yield 5.10 per cent per annum to maturity.

11 *February*. Commonwealth cash loan opened with yields of 5.6 per cent for 1 year 5 months, 5.75 per cent for 3 years 3 months, 5.9 per cent for 7 years 5 months, 6 per cent for 21 years 8 months and 6 per cent for 35 years 5 months. An amount of $209 million was raised. A conversion offer was made on the same terms as the cash loan for $245 million maturing 15 February. An amount of $112 was converted.

23 *February*. 'Indian–Pacific' rail passenger service between Sydney and Perth inaugurated.

26 *February*. A meeting of the Australian Loan Council was held in Canberra.

6 *March*. Reserve Bank announced increases in trading bank overdraft and deposit rates—maximum overdraft rate lifted to 8¼ per cent; personal instalment loans to 6½ per cent flat and fixed deposits to 5½ per cent.

23 *March*. The first production delivery of Bass Strait crude oil loaded on an Australian flag tanker at Westernport Bay, Victoria.

31 *March*. The Commonwealth issued $250 million Treasury Notes to the Reserve Bank and advanced the proceeds to the Australian Wheat Board to enable the Board to repay an equivalent amount to the Reserve Bank in connection with advances from the Bank to finance the 1968–69 Wheat Pool.

1 *April*. Bank housing loan interest rates increased to 6¼ per cent on new houses and 6¾ per cent on existing houses.

2 *April*. Primary producers to be exempted from 0.5 per cent increase in bank overdraft rates which came into effect in March.

13 *April.* Issue price of Commonwealth Treasury Notes was reduced to 98.67 per cent for three-month notes to yield 5.407 per cent per annum to maturity and 97.34 per cent per annum for six-month notes to yield 5.48 per cent to maturity.

30 *April.* Interest rate on long-term Commonwealth bonds raised to 7 per cent for the first time.

1 *May.* Special Bonds Series U issued at par with interest rates ranging from 6.40 to 7 per cent and optional redemption prices ranging from par to 103 per cent at maturity on 1 April 1978.

It was announced that trans-Tasman freight rates would increase from 5 per cent to 15 per cent.

Legislation to control packaging of goods—to protect consumers from deceptive packaging—came into force throughout Australia.

7 *May.* Commonwealth cash loan opened with yields of 6.5 per cent for 3 years 2 months, 6.8 per cent for 8 years 3 months and 7 per cent for 19 years. An amount of $49 million was raised.

12 *May.* The U.S.A. Government placed a temporary ban on the import of Australian mutton until the general standards of hygiene and inspection improved.

1 *June.* A conversion offer of Special Bonds Series U was made for $42 million Special Bonds Series H maturing 1 June. An amount of $30 million was converted.

2 *June.* Academics awarded a 20 per cent salary increase.

10 *June.* Canada banned imports of Australian mutton until inspection problems were overcome.

12 *June.* Commonwealth Trading Bank to link with 4 European banking groups to form the Australian European Finance Corporation Ltd.

26 *June.* The Australian Loan Council met and approved a borrowing programme for 1970–71 of $823 million ($680 million for State works and $143 million for Commonwealth–State housing.) The Commonwealth would provide an interest-free capital grant of $200 million towards this programme which should reduce the need for Commonwealth assistance by way of Special loans and would result in lower State Government debt charges than would otherwise have been the case. A borrowing programme of $400 million was approved for State semi-government and local authorities which borrow more than $300,000 during the year.

At the Premiers' Conference, the Commonwealth undertook to make grants to meet the debt charges on $200 million of State debt in 1970–71 and on an additional $200 million each year from 1971–72 to 1974–75 so that, from the commencement of 1974–75, the Commonwealth would have taken over the full responsibility for the debt charges on $1,000 million of existing State debt. The securities included in the debt package carry an average interest rate of 5.5 per cent, compared with the average for all State Government securities on issue at 30 June 1970 of 5.1 per cent. The Commonwealth would also take over responsibility for the States' sinking fund contributions of 0.25 per cent on these securities.

30 *June.* Special cash loan of $355 million, financed from a Commonwealth trust fund, issued to complete State loan programmes for 1969–70. Terms were the same as those for the cash loan which opened 7 May.

APPENDIX

Some recent information which has come to hand since the various chapters were sent to press is given in summarised form in the following pages, but for later statistics on the subjects dealt with in chapters reference should in general be made to other publications issued by this Bureau, e.g. the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, the *Digest of Current Economic Statistics*, and the various mimeographed statements issued on particular subjects (*see* Publications issued by the Commonwealth Statistician, pages 1026–38 of the Chapter Miscellaneous)

CHAPTER 3. GENERAL GOVERNMENT

Parliamentary government

Party affiliation is indicated by the use of the following abbreviations.

A.L.P.—Australian Labour Party
C.P.—Australian Country Party
Lib.—Liberal Party of Australia

Commonwealth Ministries

The title of the ministerial office of the Rt Hon. W. McMahon, M.P., was changed on 6 November 1970 from Minister for External Affairs to Minister for Foreign Affairs. The title of his department was similarly changed from Department of External Affairs to Department of Foreign Affairs.

Commonwealth Parliament

THE SENATE

Consequent on the death of the Hon. G. C. McKellar (C.P.) N.S.W., Mr. D. B. Scott (C.P.) was appointed to fill the casual vacancy. Senator Sir Kenneth McColl Anderson created a Knight Bachelor in the Queen's Birthday Honours List.

THE HOUSE OF REPRESENTATIVES

Consequent on the death of Mr J. R. Fraser M.P. (A.L.P.) Australian Capital Territory, Mr K. E. Enderby (A.L.P.) was elected to fill the vacancy and similarly Mr A. A. Staley (Lib) was elected to fill the vacancy caused by the death of the Hon. Sir Wilfrid Kent Hughes, K.B.E., M.V.O., M.C., E.D. (Lib.) Chisholm (Vic.)

State Ministries, page 67

NEW SOUTH WALES, QUEENSLAND, WESTERN AUSTRALIA AND TASMANIA

No change as from pages 67–9

VICTORIA

(*From 11 June 1970*)

Premier and Treasurer—
The Hon. Sir Henry Bolte, K.C.M.G., M.P. (Lib.)

Chief Secretary—
The Hon. Sir Arthur Rylah, K.B.E., C.M.G., E.D., M.P. (Lib.)

Minister of Agriculture—
The Hon. G. L. Chandler, C.M.G., M.L.C. (Lib.)

Minister for Local Government—
The Hon. R. J. Hamer, E.D., M.L.C. (Lib.)

Attorney-General, and Minister of Immigration—
The Hon. G. O. Reid, M.P. (Lib.)

Minister of Education—
The Hon. L. H. S. Thompson, M.P. (Lib.)

Minister of Housing, Minister of Forests, and Minister for Aboriginal Affairs—
The Hon. E. R. Meagher, M.B.E., E.D., M.P. (Lib.)

Minister for Fuel and Power, and Minister of Mines—
The Hon. J. C. M. Balfour, M.P. (Lib.)

Minister of Health—
The Hon. J. F. Rossiter, M.P. (Lib.)

Minister of Transport—
The Hon. V. F. Wilcox, M.P. (Lib.)

Minister of State Development and Minister for Tourism—
The Hon. V. O. Dickie, M.L.C. (Lib.)

Minister of Lands, Minister of Soldier Settlement, and Minister for Conservation—
The Hon. W. A. Borthwick, M.P. (Lib.)

Minister for Labour and Industry, and Assistant Minister of Education—
The Hon. J. A. Rafferty, M.P. (Lib.)

Minister of Public Works—
The Hon. Murray Byrne, M.L.C. (Lib.)

Minister of Water Supply—
The Hon. I. W. Smith, M.P. (Lib.)

SOUTH AUSTRALIA

(*From 2 June 1970*)

Premier, Treasurer, Minister of Mines and Minister of Development—
The Hon. Donald Allan Dunstan, Q.C., M.P. (A.L.P.)

Deputy Premier, Minister of Works and Minister of Marine—
The Hon. James Desmond Corcoran, M.P. (A.L.P.)

Chief Secretary and Minister of Health—
The Hon. Albert James Shard, M.L.C. (A.L.P.)

Minister of Education—
The Hon. Hugh Richard Hudson, M.P. (A.L.P.)

Attorney-General, Minister of Social Welfare and Minister of Aboriginal Affairs—
The Hon. Leonard James King, Q.C., M.P. (A.L.P.)

Minister of Roads and Transport and Minister of Local Government—
The Hon. Geoffrey Thomas Virgo, M.P. (A.L.P.)

Minister of Agriculture and Minister of Forests—
The Hon. Thomas Mannix Casey, M.L.C. (A.L.P.)

Minister of Labour and Industry—
The Hon. Glen Raymond Broomhill, M.P. (A.L.P.)

Minister of Lands, Minister of Repatriation and Minister of Irrigation—
The Hon. Alfred Francis Kneebone, M.L.C. (A.L.P.)

Leader of the Opposition—The Hon. R. S. Hall, M.P. (Liberal and Country League)

CHAPTER 14. PUBLIC HEALTH

Survey of chronic illnesses, injuries and impairments

In May 1968 a survey, based on the population survey sample (a one per cent sample of households), was conducted in all States except Victoria, in order to obtain estimates of the incidence of chronic illnesses, injuries and impairments in the population, the nature of these conditions and their cause. In addition, the survey obtained information on the effect of these conditions on the activities of those who suffered from them. A similar survey was not conducted in Victoria because a survey of superannuation was already being carried out at that time.

The survey covered persons in all States other than Victoria, with the exception of members of the permanent armed forces, national servicemen enlisted in the Regular Army Supplement and certain diplomatic personnel customarily excluded from census and estimated populations.

The meaning of the principal terms used is as follows.

(i) *Illness* includes injuries and impairments as well as diseases and any other morbid conditions.
(ii) *Chronic illness.* An illness was considered to be chronic if the respondent claimed to have suffered from it at the time of the interview and had suffered from it for more than six months.
(iii) *Limiting illness or condition.* A chronic illness was classified as "limiting" if the respondent replied in the affirmative to the question "Are your activities limited in any way as a result of (the chronic condition)?"

For further details, reference should be made to the mimeographed bulletin *Chronic Illnesses, Injuries and Impairments, May* 1968 (Reference No. 17.3) Further particulars of the quarterly population survey will be found in Chapter 21, page 694.

PERSONS SUFFERING FROM CHRONIC ILLNESS, MAY 1968

State	Estimated civilian population (a) ('000)	Persons with a chronic illness		Persons with a chronic limiting illness	
		Number ('000)	Rate (b)	Number ('000)	Rate (b)
MALES					
New South Wales	2,168.8	474.6	219	192.6	89
Queensland	867.3	188.0	217	80.0	92
South Australia	560.7	111.6	199	46.2	82
Western Australia	458.5	105.9	231	42.6	93
Tasmania	192.0	42.0	219	19.3	100
Total(c)	*4,247.3*	*922.1*	*217*	*380.7*	*90*
FEMALES					
New South Wales	2,178.8	526.0	241	200.2	92
Queensland	852.2	196.1	230	74.8	88
South Australia	558.4	116.5	209	43.8	78
Western Australia	443.7	104.8	236	40.3	91
Tasmania	189.1	44.1	233	16.7	88
Total(c)	*4,222.2*	*987.4*	*234*	*375.7*	*89*
PERSONS					
New South Wales	4,347.6	1,000.6	230	392.8	90
Queensland	1,719.5	384.1	223	154.7	90
South Australia	1,119.1	228.1	204	90.0	80
Western Australia	902.2	210.6	233	82.9	92
Tasmania	381.1	86.1	226	36.0	94
Total(c)	**8,469.5**	**1,909.5**	**225**	**756.4**	**89**

(a) *See* explanation above. (b) Number per 1,000 of estimated population in each group. (c) Excludes Victoria, the Northern Territory and the Australian Capital Territory.

PERSONS SUFFERING FROM CHRONIC ILLNESS, BY AGE: TOTAL, FIVE STATES(a) MAY 1968

Age group (years)	*Estimated civilian population (b) ('000)*	*Persons with a chronic illness*		*Persons with a chronic limiting illness*		
		Number ('000)	*Rate(c)*	*Number ('000)*	*Rate(c)*	*Per cent (d)*
			MALES			
0– 4	411.8	30.8	75	4.9	12	15.9
5–14	852.3	104.9	123	31.7	37	30.2
15–24	723.6	86.5	120	27.8	38	32.1
25–34	541.4	92.4	171	25.2	46	27.3
35–44	550.0	126.5	230	39.8	72	31.5
45–54	491.8	161.1	328	67.7	138	42.0
55–59	207.6	81.5	393	37.9	183	46.5
60–64	163.5	70.0	428	41.4	253	59.1
65–74	201.9	106.3	526	63.1	312	59.4
75 and over	103.4	62.0	599	41.2	399	66.5
Total	*4,247.3*	*922.1*	*217*	*380.7*	*90*	*41.3*
			FEMALES			
0– 4	386.4	23.2	60	4.3	11	18.5
5–14	816.7	82.9	101	22.6	28	27.3
15–24	711.3	90.3	127	22.1	31	24.5
25–34	514.3	98.2	191	22.9	44	23.3
35–44	519.0	138.8	267	41.1	79	29.6
45–54	485.9	157.9	325	56.5	116	35.8
55–59	203.6	80.8	397	33.9	166	42.0
60–64	164.9	74.2	450	32.8	199	44.2
65–74	253.3	134.1	529	68.5	270	51.1
75 and over	166.8	107.2	643	70.9	425	66.1
Total	*4,222.2*	*987.4*	*234*	*375.7*	*89*	*38.0*
			PERSONS			
0– 4	798.2	54.0	68	9.3	12	17.2
5–14	1,669.0	187.8	113	54.3	33	28.9
15–24	1,434.9	176.8	123	50.0	35	28.3
25–34	1,055.7	190.6	181	48.0	45	25.2
35–44	1,069.0	265.3	248	80.9	76	30.5
45–54	977.7	319.1	326	124.2	127	38.9
55–59	411.2	162.3	395	71.8	175	44.2
60–64	328.4	144.2	439	74.2	226	51.5
65–74	455.3	240.4	528	131.6	289	54.7
75 and over	270.1	169.1	626	112.1	415	66.3
Total	**8,469.5**	**1,909.5**	**225**	**756.4**	**89**	39.6

(a) Excludes Victoria, the Northern Territory and the Australian Capital Territory. (b) *See* explanation on page 1085. (c) Number per 1,000 of population in each group. (d) Percentage of persons with a chronic illness who were limited in their activities.

PERSONS SUFFERING FROM CHRONIC LIMITING ILLNESS, BY CAUSE OF MOST LIMITING CONDITION, MAY 1968

State	*Congenital*		*War injury or war illness*		*Accident or violence (not resulting from war)*		*Other known causes*		*Total (including cause unknown)*	
	Number ('000)	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*	*Number ('000)*	*Rate (a)*
					MALES					
New South Wales	14.7	7	25.5	12	24.5	11	127.4	59	192.6	89
Queensland	6.0	7	11.0	13	11.9	14	51.1	59	80.0	92
South Australia	*	*	5.8	10	7.5	13	29.1	52	46.2	82
Western Australia	*	*	8.4	18	7.0	15	24.9	54	42.6	93
Tasmania	*	*	*	*	*	*	12.1	63	19.3	100
Total(b)	*29.0*	*7*	*54.0*	*13*	*52.7*	*12*	*244.6*	*58*	*380.7*	*90*
					FEMALES					
New South Wales	14.5	7	*	*	13.1	6	171.3	79	200.2	92
Queensland	7.0	8	*	*	*	*	63.9	75	74.8	88
South Australia	*	*	*	*	*	*	36.4	65	43.8	78
Western Australia	*	*	*	*	5.2	12	33.3	75	40.3	91
Tasmania	*	*	*	*	*	*	12.6	67	16.7	88
Total(b)	*28.2*	*7*	*	*	*27.9*	*7*	*317.5*	*75*	*375.7*	*89*
					PERSONS					
New South Wales	29.2	7	26.2	6	37.6	9	298.7	69	392.8	90
Queensland	13.0	8	11.2	6	15.6	9	115.1	67	154.7	90
South Australia	7.2	6	6.0	5	11.3	10	65.4	58	90.0	80
Western Australia	4.1	5	8.5	9	12.2	14	58.1	64	82.9	92
Tasmania	*	*	*	*	*	*	24.7	65	36.0	94
Total(*b*)	**57.1**	**7**	**55.3**	**7**	**80.5**	**10**	**562.0**	**66**	**756.4**	**89**

*Estimates less than 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

(*a*) Number per 1,000 of population in each group. (*b*) Excludes Victoria, the Northern Territory and the Australian Capital Territory.

CHRONIC ILLNESSES REPORTED(*a*): TYPES, NUMBERS AND RATES, TOTAL, FIVE STATES(*b*), MAY 1968

International code number	*Type of illness*	*Number ('000)*			*Rate(c)*		
		Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
000–136	Infective and parasitic diseases	14.8	6.8	21.6	3	2	3
010–019	Tuberculosis	6.3	*	8.3	1	*	1
044	Late effects of acute poliomyelitis	4.4	*	7.4	1	*	1
140–239	Neoplasms	11.1	12.6	23.7	3	3	3
140–209	Malignant and lymphatic neoplasms	8.8	9.7	18.4	2	2	2
210–239	Benign neoplasms and neoplasms of unspecified nature	*	*	5.3	*	*	1
240–279	Endocrine, nutritional and metabolic diseases	36.1	38.1	74.2	8	9	9
240–246	Diseases of thyroid gland	*	11.2	12.4	*	3	1
250	Diabetes mellitus	18.3	22.6	40.9	4	5	5
274	Gout	14.9	*	16.7	4	*	2
280–289	Diseases of the blood and blood-forming organs	6.8	34.2	41.0	2	8	5
290–315	Mental disorders	70.4	80.1	150.5	17	19	18
290–299	Psychoses	7.9	9.8	17.6	2	2	2
300	Neuroses	27.4	43.8	71.1	6	10	8
303	Alcoholism	6.3	*	7.2	1	*	1
305	Physical disorders of presumably psychogenic origin	6.5	5.1	11.6	2	1	1
310–315	Mental retardation	12.5	12.9	25.4	3	3	3
320–389, 791	Diseases of the nervous system and sense organs, and headache	113.3	117.7	231.0	27	28	27
342	Paralysis agitans	*	*	5.1	*	*	1
345	Epilepsy	8.3	10.1	18.4	2	2	2

For footnotes see next page

CHRONIC ILLNESSES REPORTED(*a*): TYPES, NUMBERS AND RATES, TOTAL, FIVE STATES(*b*), MAY 1968—*continued*

International code number	*Type of illness*	*Number ('000)*			*Rate(c)*		
		Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
346, 791	Migraine and headache	9.6	18.2	27.8	2	4	3
350–358	Diseases of the nerves and peripheral ganglia	4.0	4.2	8.2	1	1	1
360–379	Diseases and conditions of the eye	29.0	32.4	61.4	7	8	7
373	Strabismus	*	*	4.5	*	*	1
374	Cataract	*	6.7	10.3	*	2	1
375	Glaucoma	*	4.6	7.1	*	1	1
379	Blindness	8.6	10.1	18.7	2	2	2
380–389	Diseases of the ear and mastoid process	52.7	42.5	95.2	12	10	11
388, 389	Deaf mutism and other deafness	46.5	37.2	83.8	11	9	10
380–387	Other ear and mastoid diseases	6.2	5.2	11.4	1	1	1
390–458	Diseases of the circulatory system	209.6	320.2	529.8	49	76	63
390–398	Active rheumatic fever and chronic rheumatic heart disease	5.5	6.5	12.0	1	2	1
400–404	Hypertensive disease	52.2	127.0	179.3	12	30	21
410–414	Ischaemic heart disease	33.7	23.3	57.0	8	6	7
420–429	Other forms of heart disease	54.7	62.8	117.5	13	15	14
430–438	Cerebrovascular disease	14.5	15.6	30.1	3	4	4
440–448	Diseases of arteries, arterioles, etc.	7.9	7.1	15.0	2	2	2
440	Arteriosclerosis	6.4	5.6	12.0	2	1	1
450–458	Diseases of veins, lymphatics, etc.	41.0	78.0	119.0	10	18	14
454	Varicose veins of lower extremities	17.8	56.3	74.1	4	13	9
455	Haemorrhoids	17.0	12.3	29.3	4	3	3
460–519	Diseases of the respiratory system	287.5	263.8	551.3	68	62	65
466, 490, 491	Bronchitis	91.8	70.9	162.7	22	17	19
493	Asthma	89.4	77.3	166.7	21	18	20
463, 500	Acute tonsillitis and hypertrophy of tonsils and adenoids	*	4.2	6.8	*	1	1
503	Chronic sinusitis	17.3	15.3	32.7	4	4	4
507	Hay fever	66.9	87.5	154.4	16	21	18
530–577	Diseases of the digestive system(*d*)	131.6	71.3	202.9	31	17	24
530–537	Diseases of oesophagus, stomach and duodenum	89.2	36.6	125.8	21	9	15
531	Ulcer of stomach	34.5	14.8	49.3	8	4	6
532	Ulcer of duodenum	43.4	14.8	58.2	10	4	7
533	Peptic ulcer, site unspecified	7.6	4.6	12.1	2	1	1
550–553	Hernia of abdominal cavity	32.5	17.4	49.9	8	4	6
570–577	Diseases of liver, gallbladder and pancreas	5.5	9.8	15.3	1	2	2
580–629	Diseases of the genito-urinary system	23.2	50.4	73.6	5	12	9
580–599	Diseases of the urinary system	21.1	47.5	68.6	5	11	8
580–584	Nephritis and nephrosis	*	4.2	7.1	*	1	1
590	Infections of kidney	*	13.6	15.3	*	3	2
592	Calculus of kidney and ureter	5.4	4.0	9.5	1	1	1
591, 593	Other diseases of kidney and ureter	9.6	21.0	30.7	2	5	4
680–709	Diseases of the skin and subcutaneous tissue	33.5	41.8	75.3	8	10	9
690–692	Eczema and dermatitis	28.3	36.5	64.8	7	9	8
710–738	Diseases of the musculoskeletal system and connective tissue	182.3	240.0	422.3	43	57	50
710–715	Arthritis	81.1	150.3	231.4	19	36	27
712	Rheumatoid arthritis and allied conditions	5.6	13.7	19.3	1	3	2
713	Osteo-arthritis and allied conditions	13.8	17.3	31.3	3	4	4
716–718	Rheumatism, except rheumatic fever	31.6	47.7	79.2	7	11	9
716, 717	Non-articular rheumatism	4.7	4.2	8.8	1	1	1
718	Rheumatism, unspecified	26.9	43.5	70.4	6	10	8
720–729	Osteomyelitis and other diseases of bone and joint	62.8	35.3	98.0	15	8	12
725	Displacement of intervertebral disc	35.9	21.2	57.1	8	5	7
727	Ankylosis of joint	10.9	4.0	14.9	3	1	2
735–738	Deformities of skeletal system	4.6	4.2	8.8	1	1	1
740–759	Congenital anomalies	15.5	13.9	29.4	4	3	3
746	Congenital anomalies of heart	*	*	6.1	*	*	1
754, 755	Congenital anomalies of limbs	4.8	4.1	8.8	1	1	1
780–789	Symptoms referable to systems of organs	16.7	11.6	28.3	4	3	3
780, 781	Nervous system and special senses	*	*	5.8	*	*	1
782	Cardiovascular and lymphatic system	*	*	6.7	*	*	1
787	Limbs and joints	6.2	*	9.4	1	*	1
790	Nervousness and debility	10.9	25.8	36.8	3	6	4
794	Senility without mention of psychosis	*	5.0	6.4	*	1	1
N800–N999	Accidents, poisonings and violence (nature of injury)	61.4	25.4	86.8	14	6	10
N800–N809	Fracture of skull, spine and trunk	5.3	*	7.6	1	*	1
N820–N829	Fracture of lower limb	6.1	7.0	13.1	1	2	2
N830–N848	Dislocation without fracture; sprains, etc.	*	*	6.1	*	*	1
N885, N886	Traumatic amputation of thumb and/or fingers	12.0	*	14.0	3	*	2
000–999	**Total, all illnesses**	**1,226.9**	**1,359.9**	**2,586.8**	**289**	**322**	**305**

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* Less than 4,000 or based on a figure less than 4,000. *See* note to table on page 1087.

(*a*) Where a person suffered from more than four chronic illnesses, only the four most serious were tabulated. (*b*) Excludes Victoria, the Northern Territory and the Australian Capital Territory. (*c*) Number of chronic illnesses reported per 1,000 of population. (*d*) Excludes 520–529 (diseases of oral cavity, salivary glands and jaws).

PERSONS SUFFERING FROM CHRONIC LIMITING ILLNESS (EXCLUDING INSTITUTIONALISED PERSONS(*a*)), BY NATURE OF HANDICAP, MAY 1968

	N.S.W.	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*(*b*)
SUBSTANTIALLY HANDICAPPED IN SOCIAL OR RECREATIONAL ACTIVITIES						
Number ('000)—						
Males	105.5	47.8	27.2	23.8	9.9	214.3
Females	107.0	44.0	26.0	20.6	9.4	207.0
Persons	212.4	91.8	53.2	44.5	19.4	421.2
Rate(*c*)—						
Males	49	56	49	53	52	51
Females	50	52	47	47	50	50
Persons	50	54	48	50	51	50
IN NEED OF HELP FROM OTHERS IN ANY OF THE ACTS OF DAILY LIVING(*d*)(*e*)						
Number ('000)—						
Males	12.2	4.2	*	*	*	22.5
Females	16.3	6.3	*	*	*	31.0
Persons	28.4	10.5	6.9	4.7	*	53.4
Rate(*c*)—						
Males	6	5	*	*	*	6
Females	8	8	*	*	*	8
Persons	7	7	7	6	*	7
PREVENTED FROM GETTING ABOUT ALONE(*f*)(*g*)						
Number ('000)—						
Males	20.1	7.5	4.3	*	*	35.9
Females	40.3	13.9	10.2	5.7	*	73.3
Persons	60.4	21.4	14.5	8.1	4.7	109.2
Rate(*c*)—						
Males	13	13	11	*	*	12
Females	26	24	26	19	*	25
Persons	20	18	19	13	18	19
FEMALES SUBSTANTIALLY HANDICAPPED IN ABILITY TO DO HOUSEWORK(*g*)						
Number ('000)	58.9	22.6	15.0	10.1	4.3	111.0
Rate(*c*)	38	38	38	34	33	37
WITH A WORK HANDICAP(*h*)						
Number ('000)—						
Males	50.5	20.5	12.0	10.2	5.5	98.7
Females	30.7	10.8	5.2	5.6	*	55.2
Persons	81.2	31.2	17.2	15.8	8.4	153.9
Rate(*c*)—						
Males	37	39	34	36	47	37
Females	24	22	16	23	*	23
Persons	31	31	26	29	38	30

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* Less than or based on a figure less than 4,000. *See* note to table on page 1087.

(*a*) Institutionalised persons are inmates of hospitals, convalescent homes, homes for the aged or handicapped, orphanages and penal establishments. For the purposes of the survey, a person was classified as an inmate if he spent the Wednesday night preceding the week in which he was interviewed in one of these institutions. (*b*) Excludes Victoria, the Northern Territory and the Australian Capital Territory. (*c*) Number per 1,000 of population, excluding institutionalised persons, in the same group. (*d*) Eating, bathing, dressing, getting into bed, etc. (*e*) Aged 5 years and over. (*f*) For shopping, visiting the doctor, etc. (*g*) Aged 15 years and over. (*h*) Males 15 to 64 years; females 15 to 59 years.

NOTE. These categories of limited activities are not mutually exclusive. Some persons are limited in one or more activities while others are limited by a chronic illness but are not in any one of the above categories.

PERSONS WITH A WORK HANDICAP BECAUSE OF CHRONIC ILLNESS (EXCLUDING INSTITUTIONALISED PERSONS(*a*)): TOTAL, FIVE STATES(*b*), MAY 1968

	Males aged 15–64 years		*Females aged 15–59 years*		*Total*	
	Number ('000)	*Per cent*	*Number ('000)*	*Per cent*	*Number ('000)*	*Per cent*
Total with a work handicap—	98.7	100.0	55.2	100.0	153.9	100.0
Handicap overcome—	39.4	40.0	6.0	10.9	45.5	29.6
Working with special arrangement or assistance(*c*)	16.5	16.7	*	*	19.6	12.8
Forced to change occupation	22.9	23.2	*	*	25.8	16.8
Handicap not overcome—	59.3	60.0	49.1	89.1	108.4	70.4
Prevented from working at a job	43.1	43.7	36.5	66.2	79.6	51.8
Seriously handicapped in getting or holding a job	16.1	16.3	12.6	22.8	28.7	18.7
Handicap could not be overcome	43.6	44.1	38.0	69.0	81.6	53.0
Handicap could be overcome(*d*)	15.7	15.9	11.1	20.1	26.8	17.4
Would accept work	14.1	14.3	8.7	15.8	22.8	14.8

* Less than 4,000 or based on a figure less than 4,000. *See* note to table on page 1087.
(*a*) *See* footnote (*a*) to previous table. (*b*) Excludes Victoria, the Northern Territory and the Australian Capital Territory. (*c*) Light, simple, sedentary work, special equipment, short hours, transport provided. (*d*) Persons who reported that their handicap could be overcome by the provision of special arrangements or assistance

CHAPTER 19. PUBLIC FINANCE

COMMONWEALTH FINANCE

Commonwealth Budget, 1970-71

(*see* pages 1079 for particulars of 1969–70 Budget)

The 1970–71 Commonwealth Budget provided for an estimated outlay of $7,915 million ($7,113 million in 1969-70) and estimated receipts of $7,920 million ($7,106 million in 1969–70). The surplus for 1970–71 was thus estimated at $4 million (the deficit in 1969–70 was $7 million).

Outlay

OUTLAY OF COMMONWEALTH BUDGET
($ million)

	1969–70		*1970–71 Estimates*	
Outlay—				
Net expenditure on goods and services—				
Current expenditure—				
War and defence	1,017		1,063	
Repatriation	84		91	
Development of resources and assistance to industry	156		178	
Civil aviation	38		40	
Immigration	59		61	
Law, order and public safety	16		17	
Education	41		51	
Public health and welfare	64		77	
External affairs	31		33	
All other	250		273	
		1,755		1,884
Capital expenditure—				
Public enterprises—				
Houses and flats	15		247	
Other	32			
Public authorities—				
Transport	63			
Other	84			
		195		247
Total		1,950		2,131

OUTLAY OF COMMONWEALTH BUDGET—*continued*
($ million)

	1969–70		1970–71 Estimates	
Transfer payments—				
Cash benefits to persons	1,598		1,745	
Grants to States	1,620		2,065	
Interest paid	546		577	
Overseas grants and contributions	180		185	
Subsidies	213		291	
Grants for private capital purposes	33		35	
Total		4,189		4,898
Total Expenditure		6,139		7,030
Net advances—				
to States—Works purposes	518		364	
Housing agreement	118		127	
Other	31		17	
		667		508
to Commonwealth authorities—Post Office	233		240	
S.M.H.E.A.	33		28	
Airlines	−16		35	
Other	21		33	
		271		336
to Other sectors—by War Service Homes	11		14	
Other	25		28	
		36		42
Total		974		886
Total Outlay		**7,113**		**7,915**

The main increases in Budget allocation in 1970–71 over 1969–70 were in the fields of grants to the States (from $1,620 million to $2,065 million), of cash benefits to persons (from $1,598 million to $1,745 million) and of assistance to industry (from $191 million to $272 million). The estimated increases are due mainly to the following additional commitments.

Payments to the States (grants and net advances)

An estimated overall increase of $291 million in payments to the States included increases of $170 million in financial assistance grants, $12 million in servicing charges on State debt (as first stage in effecting the formal transfer by July 1974 of $1,000 million of State debt to the Commonwealth in yearly amounts of $200 million), an interest free grant of $200 million to the States for works (thereby reducing repayable advances by $145 million), $10 million in advances to States for housing, and $25 million in Commonwealth Aid Roads grants.

Cash benefits to persons.

Repatriation Benefits (weekly rates). *War pensions:* Special rate, $38.00; Intermediate rate, $28.00; General rate special compensation allowance, $4.50 to $6.00; War widows—pension, $15.50; domestic allowance, $8.00; War orphans—one parent dead, $6 for the first child and $5 for each other child; both parents dead, $12 for each child. *Service pensions:* single rate, $15.50; married rate (both pensioners), $13.75 each (*see* Chapter 5 Repatriation).

Social Service Benefits (weekly rates). Age and Invalid pensions and Sheltered Employment allowances: single rate, $15.50; married rate (both eligible), $13.75 each. Widows pensions: Class ‘A’ $15.50; Class ‘B’ and Class ‘C’ $13.75. Long-term Sickness Benefits: higher rates become payable after six weeks as follows—$15.50 for an adult or married minor, and $10 for a person aged 16 and under 21 years. In addition, supplementary assistance of $2 (maximum) may be payable. Persons who are in hospital and have no dependants do not qualify for these higher benefits (*see* Chapter 13 Welfare Services).

Health Benefits (weekly rates). Tuberculosis allowances: single person $18.75; man and wife, $30.75. Subsidised Medical Services: free health insurance for hospital and medical fund benefits is provided for family groups, of at least two units, where the family income does not exceed $42.50 a week. The Commonwealth will also pay two-thirds the cost of the usual insurance rates for these benefits where the family income is between $42.50 and $45.50 a week; and one-third of the usual rates where the family income is between $45.50 and $48.50 a week (*see* Chapter 14 Public Health).

Payments to industry. An estimated increase of $81 million in the cost of assistance to Australian industry by way of bounties, subsidies and other payments and by way of contribution to promotion and research was largely due to the following increases on 1969–70 expenditures: wheat industry stabilisation, $31 million; emergency assistance to woolgrowers, $30 million; and butter and cheese bounty, $15 million.

Receipts

RECEIPTS OF COMMONWEALTH BUDGET
($ million)

	1969–70		1970–71 Estimates	
Receipts—				
Taxation—				
Indirect taxes	2,207		2,492	
Income taxes on companies	1,197		1,452	
Income taxes on persons—P.A.Y.E.	2,084		2,275	
Other	771		758	
Estate and gift duties	80		74	
Total		6,339		7,050
Other receipts—				
Interest, rent and dividends	711		805	
Gross income of public enterprises	44		53	
Net sales of existing assets	12		12	
Total		767		870
Total Receipts		**7,106**		**7,920**

Of the expected increase of $814 million in receipts, it was estimated that $711 million would be derived from increased taxation collections after allowing for proposed changes in rates. Proposed changes in existing taxes and charges included rate reductions in individuals' income tax (of some 10 per cent on taxable incomes up to $10,000, tapering off to 4.4 per cent at $20,000, with no reduction on incomes of $32,000 and above); a higher exemption level for age allowances; increases in companies' income tax (by adding 2.5 cents in the dollar to all rates), in customs and excise duty on petroleum products, tobacco products and on wine (excise duty on wine newly imposed in 1970–71), in sales tax (25 per cent raised to 27.5 per cent), in post office charges and in miscellaneous charges for services relating to air and marine navigation and radio communication.

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This index is preceded by a list of the special articles, etc., which have appeared in previous issues of the Year Book. The illustrations contained in this issue are listed under the various chapters in the Contents (pages vii–xi). *Where more than one reference to a subject is given, the chief reference, wherever it has been possible to determine it, is indicated by italic type. Two references to a subject so indicated signify major, and approximately equal, importance.*

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